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TRACTS

ON

DELIRIUM TREMENS, &c.

TRACTS

OF

DILIRIUM TREMENS, &c.

TRACTS

ON

DELIRIUM TREMENS,

ON

PERITONITIS,

AND ON

SOME OTHER INTERNAL INFLAMMATORY AFFECTIONS,

AND ON

The Gout.

BY

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TRACTS

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The way of theory and hypothesis is much the cheapest and most expeditious method of making a Physician.—A heated imagination will always supply us with knowledge, such as it is, much faster than the ordinary course of nature. The road of experience is tedious, and requires great judgement, as well as patience.—Vide HEBERDEN'S designed Preface for the Medical Transactions, 1767.

ON

DELIRIUM TREMENS.

THE term phrenitis has, for a great number of years, been intended to convey the idea of a disease materially affecting the brain with continued delirium, and connected with violent morbid exertions. This disease has been divided into two species: the one, arising from a primary affection of the brain, accompanied with fever, has gained the name of idiopathic phrenitis: the other, as it was found to follow febrile affections, and was not immediately connected with these diseases in their commencement, has been called sympathetic phrenitis; and the cure of it has been

recommended to be governed, in a great degree, by the nature of the affection which preceded it. But the disease termed idiopathic phrenitis, has been generally considered to be of the inflammatory kind, and most frequently to consist of active inflammation of the brain, attended with fever, and therefore to require the most powerful antiphlogistic remedies, such as copious blood-letting, active purgatives, vesicatories, &c. The investigations of anatomists have supplied us with numerous instances of the state of the brain under this disease, which have disposed the profession to entertain not only the most serious apprehensions for the event of such cases, but have stamped a confirmation on the practice which has been for many years pursued. Nevertheless, upon however strong a foundation this practice may appear to rest, it will be proper to point out, that misconceptions have prevailed respecting the nature and treatment of

a disease which has generally gone under the name of phrenitis; and, with the name, has been conducted, in the cure, on the same principles.

As the account I am about to give of this disease will be of some length, I am obliged to adopt some term which may express my allusion to this last affection. This will serve to avoid the necessity of frequent circumlocution, and the confusion which would otherwise result in the progress of the narrative. The name, therefore, which I have adopted, though possibly not the most appropriate, will serve to convey a notion of an essential symptom of the disease, and will be sufficiently explicit for my present purpose.

Delirium tremens, and likewise the treatment, which will be pointed out as we proceed, are known to some professional men to a certain extent; but to many they are wholly unknown; and the disease has not yet taken a station in

medical writings.* So far as my observations and inquiries have gone on this point, its treatment is acknowledged by only a few, who have not collected any very ample information on the subject.

From the year 1798, to 1807, I resided on the eastern coast of Kent; first in quality of physician to the forces, and latterly in that of a private practitioner in physic. During this abode, and early in my residence there, I was led to see the distinction between phrenitis and

* Doctor William Saunders, late physician to St. Guy's, and for many years lecturer on medicine at that hospital, whose opinion I had the advantage of obtaining on this tract, considered the assertions in this paragraph to be perfectly correct; but stated to me, that he had mentioned the disease alluded to in his lectures for many years, and had been in the habit of noticing and distinguishing it from phrenitis during forty years of his practice. It is a considerable gratification to me to be able to introduce the opinion of this respectable physician on some important points connected with this subject.

delirium tremens, at least in regard to the treatment. Hitherto I had considered the diseases to be the same, and to depend upon active inflammation of the brain, or its membranes, and to require copious depletion, vesicatories, purging, &c., as usually recommended in books of medicine for the cure of the former disease. I however found, that this latter disease was, in that quarter, treated by different practitioners in two very distinct ways. The one party, with myself, considering the disorder to be active inflammation of the brain, or its investing membranes, conducted the treatment according to this supposition: the other, without pretending to any precise notions of this affection, in so far as the contents of the cranium might be concerned, were in the habit of using opium in large and repeated doses. I very soon perceived that the latter practice carried with it all the success. A respectable friend of mine, the late Mr.

Boys, the historian of Sandwich, and long a practising surgeon and apothecary of that place, told me, that for many years he treated delirium tremens as phrenitis, and employed the remedies usually recommended in the latter disease; with such want of success, that he considered almost every patient to be lost to whom he was called under that affection, which was a common complaint in that part of the kingdom. He further added, that, on this account, he felt great reluctance to giving his attendance in such cases; but, after he had begun the use of opium in the treatment of the disease, the prospect became so comparatively bright, that he experienced the utmost satisfaction from the success of the practice.

I have never been able to discover how a practice, so different from that which the general appearance of the symptoms seems to warrant, came to be adopted; neither through my inquiries in East

Kent, nor in my intercourse with medical practitioners in the metropolis, who have employed opium in the cure of the disease. From one of the latter, a respectable physician, I received in substance the following answer.—“ I know, from experience, that opium is of great use in this disease, and that when sleep is procured, the patient most frequently gets better ; but I have nothing to guide me to form an opinion from, as to what may be the state of the brain, nor in regard to the *modus operandi* of the remedy, than that the measure of its beneficial efficacy is by procuring sleep.”—This, then, is the sum of what I have collected from others. I shall now proceed to communicate the information I have acquired, from my own experience, in regard to the history, treatment, and nature of the affection : and for which purpose, I shall commence by giving a history of the disease in as condensed a form as possible.

Frequently the attacks of this disease

do not come on suddenly ; but for some days previously, the patient complains of being unwell, with loathing of food, listlessness, debility, and want of comfortable rest. He has pain in the head, and sometimes vomits, and appears to be dull and dejected. The pulse, in the commencement of the disease, in its ordinary occurrence, is by no means quick ; but may frequently be observed with a sort of unsteady, nervous fluttering : there is not much heat on the skin ; and the tongue is generally furred, but moist. In this stage of the disease, the patient feels very little disposition to lie down for any length of time ; but is ever uneasy, and desirous of a change of position ; and there is a general agitation of the frame, with tremors of the hands. Associated with these, the mind is perceived to waver ; and, if the disease proceeds, this becomes every day more manifest. In others, a state such as described, continues for some time, and wears off.

As the disease advances, the faculties do not, generally speaking, show themselves in disorder, by any extravagance of thought; but by fatiguing conversations on common affairs frequently repeated; and by broken discourses, caused evidently by forgetfulness and confusion of intellect. In the further progress of the disease, the patient discovers great anxiety of mind about his affairs, appears ever to be desirous to be where business is, and makes great, repeated, and violent efforts to liberate himself from those about him, if under restraint, in order to accomplish the objects that press most forcibly on his mind. These exertions are, however, not made in opposition to others, though violent, with either malignity or ill-nature; nor does the patient mark his restraints with the appearance of much anger or displeasure. He seems to be forgetful of what has immediately passed, and only to be pro-

pelled to action by those strong impressions in his mind respecting the objects above alluded to. In other respects he is tractable, and there is seldom any difficulty in administering medicine to him. In this situation he loses the sensations of pain, and complains of no bodily uneasiness; though, when in a considerable degree of this delirium, he knows momentarily those about him of his family and friends. The tremors of the hands, which constantly accompany this complaint, are now great, with unceasing workings and elevation of the tendons of the wrists; to which are very frequently associated *subsultus tendonum*, and often *singultus*. By the action of the tendons of the wrist, as above described, the hands are drawn inwards, sometimes to such extent, joined to the constant tremors, as to allow a very imperfect knowledge of the state of the pulse. When the patient is at all still, he is constantly picking the

bedclothes, and in various motions with his hands*. The evacuations are uncon-

* The accurate history of a disease is always a most important part of information; but when it is necessary to distinguish one disease from another to which it bears great resemblance, and which may require opposite treatment, then an accurate view of the progress and symptoms of a disease becomes most essential. There are two disorders, phrenitis and mania, with which delirium tremens may be occasionally confounded, and from which it ought to be distinguished. This will, I trust, be accomplished, by attention to the history of the disease now given; and I feel gratified by having the concurrence of Doctor Saunders in regard to the accuracy of my description of the disorder.

Doctor Saunders, however, thinks some observations, such as the following, might be given, on the occasional employment of the hands, in addition to what I have stated. He has often considered the motion of the hands in this state of disease, as if the patient might, with imperfect vision, be searching for things, and occasionally rapidly catching, or avoiding them: such, for instance, as if in search for rats or mice, being things he wished partly to lay hold of, and partly to avoid.

sciously rejected, in the height of the paroxysm. The pulse at this time becomes very rapid; but may occasionally appear to be more debilitated than it really is, on account of the tremors and subsultus tendonum in the manner above stated: and for these reasons, accuracy, in regard to the true condition of the pulse, cannot always be attained; and, though it seemed scarcely possible to be felt a short time before, on sleep being induced, and the workings of the tendons allayed, it will be found frequently to possess sufficient firmness and force. Accompanying the exertions at this time made, there is generally a most profuse sweat, which is sometimes clammy and cold; from which, occasionally, an offensive odour escapes. The heat of the skin varies much, but is seldom intense; and the tongue is not often inclined to be dry, or the patient thirsty. The general appearance of the countenance is dull, and the eye frequently suffused. The

state of the bowels vary ; but, during the violence of the disease, frequent stools are not common. In the height of the paroxysm, the patient is in an unremitting state of watchfulness, which continues until the disease is alleviated, or is succeeded by insensibility, which may partake of coma or apoplexy, ending in death.

This disease will continue, with great violence, from three days to a week, and with moderate symptoms for a longer time, and is sometimes seen in the form of a chronic affection.

The following cases will give some further information respecting the history of this disease, and serve as an introduction to the treatment which has been found to be the most beneficial, and afford instances from which some general inferences may be drawn respecting the nature and causes of this disorder.

CASE 1.

I attended a patient, with Doctor Michel of Woolwich, who was at first attacked with acute rheumatism, under which he had laboured for ten days ; but, in the three days previous to my visiting him, he had become very delirious, and without sleep. When I saw him, he had a strait waistcoat on ; of course might be considered to have been very ungovernable. He had been bled in the course of the day, and the blood was buffy ; the bowels had been acted on freely, a stimulating composition had been applied to the head, and a blister between the shoulders : notwithstanding which, all the symptoms had become worse. The pulse was very quick* : there were continual

* Doctor Saunders observed, that he knew no disease in which the pulse became so rapid, and recovery ensued, as in numerous cases of this affection ; which perfectly accords with my observation :

workings of the tendons, with considerable tremors and profuse sweats. After making inquiry respecting the habits of the patient, and collecting all the information I judged to be necessary, I proposed to administer forty drops of laudanum in a draught every two hours, until sleep was procured. Three of these draughts were given in succession, when the patient fell asleep, and continued so for some hours. I saw him again at the interval of sixteen hours: he was then collected; and, after recommending forty drops of tincture of opium to be given morning and evening, for some few days, I took my leave; and was happy to find, on future inquiry, that the patient recovered rapidly from that period.

but the recoveries alluded to have been effected by the treatment which is about to be pointed out; the efficacy of which, and its preference to all others, Doctor Saunders has been confirmed in, from a long experience, and attentive observation. I never saw a case of recovery, when the pulse was very rapid, except by the employment of opium.

CASE 2.

I was desired to see a patient with Messrs. Brown and Bungey, of Rotherhithe, who was reported to have been attacked, some time ago, with a fit; at present she was wandering and sleepless, had loss of appetite, vomiting, considerable debility, with quick and weak pulse, and tremors of the hands. I was given to understand, that the patient had been addicted to habits of indulgence in drinking. Some medicines were prescribed to relieve the pressing symptoms; and on calling the following day, the patient was found to be somewhat relieved. A plan was laid down to be pursued, and it was agreed that I should call again in three days. Among other medicines, a draught with thirty drops of tincture of opium was prescribed to be given every night at bed-time. When I next visited the patient, she was considerably worse; her

nights had been passed very restlessly, she had constant delirium, with quick pulse, and considerable tremors and workings of the tendons of the wrist. Under this state of things, forty drops of tincture of opium were directed to be given every two hours, until sleep was procured. Three draughts, with the above quantity of opium, were successively administered ; the patient slept for some hours, and was, when I saw her the following morning, collected. The patient continued the use of opium for some short time, as occasion seemed to demand, and acquired such a state of health, as to be thought capable of undertaking a long journey. On the second day after leaving Rotherhithe, she was attacked with a fit at Bagshot, and died rapidly.

CASE 3.

I visited a patient, with Mr. Green of Lewisham, in delirium tremens, under

the following circumstances. The patient was a robust man, and about fifty years of age. When I saw him, he was agitated and wandering, with considerable tremors, quick pulse, and under a profuse sweat: he had been very untractable for some hours, and had got from the house, having none but female attendants about him. His nose had bled freely in the course of the day, previous to my seeing him. The bowels had been evacuated, and this was the third day of his illness. Under these circumstances, it was agreed to administer two grains of extract of opium every two hours, until sleep was induced. The patient took four doses before this was effected, and I found him tranquil and rational the next morning. He afterwards continued the same dose of the extract night and morning, and took opening and mildly tonic medicines during the day, by which plan he recovered completely in a short time.

CASE 4.

I some time ago visited a patient on the third day of the attack of delirium tremens, whose treatment on the two first days had been conducted on the antiphlogistic and depleting plan, to some extent, with increase of disease. On the third day, the surgeon who attended the patient had been advised to try the effects of opium; and, in consequence, four doses of the extract, in two grain pills, had been administered every two hours. As this plan did not appear to succeed, the case was considered to be hopeless. When I saw the patient, it was two hours from the last visit of the attending surgeon, and three from the time of taking the last pill, when he was in a profound sleep, the respiration quiet, the pulse full and regular, with neither tremor, subsultus tendonum, or hiccough; the contrary of which had been the case a few

hours before. The patient was the next day completely tranquil and rational, and recovered, without interruption.

CASE 5.

I visited a publican of about fifty years of age, who was reported to have had slight aberrations of mind, some days before I saw him. His pulse was rather quicker than natural, his hands in a state of tremor, and he complained of some confusion in the head. He was a man inclined to corpulency; and as his disease was at present mild, I directed some opening medicines, requesting the party might be kept quiet, take food easy of digestion, and avoid fermented liquors. I apprized the family of the nature and probable progress of the disease. The patient was not better on the following day, when some blood was directed to be drawn by cupping;

and as the purgative had acted with freedom, I directed a draught, with thirty drops of laudanum, to be given in the evening. The patient passed the following night with great restlessness, and the delirium had evidently increased. This day was the third of my visiting him; and I directed a pill, containing a grain of opium, to be taken every six hours.

Fourth day.—The patient was very delirious, and it became necessary to have two men constantly by his bedside to restrain him; his pulse was hurried, he had considerable tremors, and profuse sweats. Two grains of opium were now directed to be taken every three hours. In the evening he had taken three of the last pills, when I directed them to be given every two hours, and he took four doses through the night, but no sleep took place.

Fifth day.—In the morning I ordered five grains of extract of opium to be given immediately, and three grains

every two hours, until rest was procured. In the evening, Dr. Babington saw the patient with me. In the course of the preceding twenty-four hours, the patient had taken a scruple of opium, which had been procured at Apothecaries' Hall, but no actual sleep had taken place: he was, however, much more tranquil; the tremors were much diminished; the pulse more moderate; and I judged that the night would not be passed through without some favorable change. Dr. Babington concurred with me in the plan of treatment that had been adopted; and we agreed to pursue the administration of opium to even a greater extent, if required. As, however, some favorable changes had arisen, it was determined to give five grains of extract of opium immediately, and to repeat it in three grain pills every two hours, till our views were attained. Three of these pills were administered as directed, and the patient fell into a tranquil sleep, of two

hours' duration, and was much better in every respect the next morning. The patient was in an advanced state of convalescence in the course of a week, from the favorable change taking place. From the time of the amendment, for the three succeeding days, three grains of extract of opium were directed, morning and evening ; afterwards a two grain pill of the extract was given every night, for some days. In addition to the use of opium, the bowels were kept open by saline purgatives ; and a medicine with camphor mixture and tincture of castor, was directed to be taken with the pills.

CASE 6.

The patient was a robust young man and much given to drinking of spirits. Two days previous to my seeing him, he had been bled largely and blistered and

the bowels had been freely opened. Afterwards, opium had been given with tolerable freedom; notwithstanding which, the delirium had continued unabated, with uninterrupted sleeplessness. On my visit, it was agreed to give two grains of opium every two hours, until rest was procured. When I again saw the patient, he had in the course of twelve hours taken eight grains of opium; but as the friends were possessed with the idea of the impossibility of his recovery, they had, for several hours, laid aside the administration of medicine. During the interval of my visits, blisters had been applied to the calves of the legs. I now found the patient, after having been much exhausted by exertion, exceedingly restless, in a profuse clammy sweat, with tremors, a very constant subsultus tendonium, a pulse scarcely to be perceived, the countenance fallen, and the eyes muddy: the urine had been discharged involuntarily, and the patient

was constantly occupied in picking the bed-clothes. Under such a state of things, the chances of recovery appeared to be little. But as we were assured of the nature and origin of the disease, and had seen much beneficial effects from opium, under some very unpromising circumstances of delirium tremens, it was determined still to advise its use, and to encourage the friends to hope that something favorable might yet ensue, by following the directions that would be given. It was then directed to give two grains of opium every hour, until rest was procured, which happened after the fourth dose; and the patient had a tranquil sleep of some hours. The next day I found him rational, his pulse free and not quick, the subsultus tendonum gone, the tremors much diminished, and he discovered some inclination for food. The patient took six grains of opium, in divided doses, for some days, and got, in a short time, into good health.

CASE 7.

This patient was verging towards sixty years of age. I found him in a state of mild delirium, and forgetfulness, but capable of rational answers when addressed. He had, for some days preceding, enjoyed no comfortable repose; was restless, but not inclined to make violent efforts. He had complained of some pain in his head, was disinclined from food, and vomited sometimes. The pulse, when I first saw him, was very little altered from its natural standard; nor was there any increase of temperature on the skin, amounting to fever. The tongue was furred, though not dry, the countenance contracted and inanimate, the eyes suffused, the hands were in considerable tremor, and the patient was constantly picking the bed-clothes. The disease, in this patient, was attacked by a blister to the back, by opening the bowels, by mild cathartics, by cordial

medicines, by the use of the pediluvium, by a moderate opiate at night, and by recommending mild nourishing food, with some wine. Several days passed under this treatment, while the disease evidently gained ground, and at last arrived at a truly alarming state. The irregular and interrupted sleep was succeeded by constant watchfulness, the countenance appeared sunk, there was subsultus tendonum and hiccough, with a pulse, so far as could be discerned for the tremors, quick, faltering, and weak, accompanied by clammy sweats and involuntary evacuations. Under these circumstances, it was determined to employ large doses of opium; for which purpose, forty drops of laudanum were prescribed to be given every two hours, until sleep was procured, which took place after the third dose. On the following day, after some hours' sleep, the patient appeared to be relieved in all his symptoms, and recovered in a

comparatively short time. An opiate, after the amendment had taken place, was administered every six hours for some days. About a year from this attack the patient died suddenly.

CASE 8.

I saw two cases of delirium tremens, nearly at the same time, which succeeded immediately to scarlet fever. I did not visit the patients in this latter disease; but could entertain no doubt of the fact, as they had a scarlet efflorescence on the skin, with sore throat in each, and scarlet fever was in the neighbourhood. One of these was a man in the prime of life, whose disease was mild, but continued for some time. The other occurred in a woman about fifty years of age. On my first visit, I found the patient had passed a bad night, but had not much fever on her. This was the sixth day of the scarlet fever. I could perceive very

little scarlet eruption ; but the throat, though not swelled, had a shining redness about it, which is not unusual after the swelling of the throat has abated from scarlet fever. There was some tremor about the patient: but, upon the whole, I considered the symptoms to be such as to warrant a conclusion, that she would proceed in recovery. Two days afterward, I again visited her, and was informed, she had been in the most alarming state of disease since I saw her, and was still so ; that she had enjoyed no sleep for two nights, and had been wandering about the chamber all the last night, and would be now found in the kitchen, where she said she was determined to be, to superintend her domestic affairs. I found her with a hurried quick pulse, under much tremor, subsultus tendonum, delirium, and constantly talking in broken sentences of her household affairs ; her countenance appeared much altered and sunk,

and the friends had considered the case to be without hope. She was directed to take opium in two and three grain pills, as occasion might require. Fifteen grains of the extract were given in twenty-four hours, and the patient had obtained some sleep; but the symptoms had not much abated. Under these circumstances, she was directed to take five grains of opium, and to repeat the opium in three grain pills, every two or three hours, until rest was procured, which happened on the following night. On the second morning after she had begun the use of opium, by which tranquil sleep was produced, the tremors, quickness of pulse, and delirium, were much abated. The patient was afterwards directed opium in two or three grain pills, night and morning, as the symptoms appeared to demand, and she recovered her health very rapidly. This case I attended with Mr. Coley, of Deptford.

CASE 9.

The present patient was a man of middle age. He had been confined for a fortnight with fever; his tongue was now covered with black sordes, pulse hurried, he had considerable delirium, with tremors, had been without any sleep for the two last nights, and had been very unmanageable. The bowels were costive; the hands and feet cool, as if from retiring circulation, and the countenance particularly unpromising. The patient was directed to take two grains of extract of opium and an equal quantity of gamboge, in the form of a pill. Of these he took three during the night, and slept for some hours. In the morning he was collected, and the most threatening symptoms had disappeared. As no motions had taken place, I agreed with Mr. Smith of Deptford, who was the attending surgeon, that immediate atten-

tion should now be given to open the bowels, and the opiate afterwards repeated, as occasion might require. In a few days the patient was in a state of convalescence.

CASE 10.

A man, advanced in years, whom I was called to visit with Mr. Baildon, surgeon, of Deptford, was reported to have received a wound on the head in a scuffle, about two days before, and some suspicion was entertained that this might be the cause of his present alarming state. Mr. Baildon informed me, that the patient had attended at his house to be dressed, for the first week after the wound was received; but that he was now in a state of delirium, and had been so for the two preceding days. There was nothing to be particularly remarked respecting the wound, only that it was not in a healing state; it

was small on the left parietal bone, and about an inch and a half from the crown of the head. I found the patient in much tremor and delirium, with considerable quickness of pulse, and in a tolerably profuse perspiration. Upon inquiry, I discovered he had been much addicted to inebriety, and had latterly indulged much in drinking spirits. From the whole I could collect, it appeared that the present delirium might be well accounted for from the patient's habits, which the symptoms sufficiently countenanced. He was directed to take forty drops of laudanum, every three hours, until sleep was procured, which happened after the second draught was given. On the following morning, I found him more rational and in every respect better. In about ten days from this period I received a summons to attend a coroner's inquest on this patient, to inquire if the party died of the injury alluded to. I sent to desire that

the head might be opened, but was not able to be at the place above a few minutes before the coroner proceeded in his investigation. I found, from Mr. Baildon, that the man had been much better for a few days after I left him, that he had afterwards become delirious again, and that he was, for two days previous to his death, in a state of insensibility. He likewise informed me, that the dura mater was ruptured on sawing through the cranium, and a considerable quantity of serous discharge had followed. On removing this membrane, I observed the vessels to be turgid with blood. The cranium internally showed no signs of injury, and the dura mater appeared to be in a completely healthy state.

CASE 11.

I attended a patient, with Mr. Jones of Deptford, in delirium tremens, who,

four days previous to my visiting him, had fallen down in a fit. He had passed two sleepless nights, was wandering and delirious, with much tremor and perspiration. On the previous day he had been bled to about twelve ounces; the blood was buffy. He was directed forty drops of laudanum every two hours, until rest was procured, which happened after the second dose. On the following day he was tranquil and completely collected, and recovered without further interruption.

CASE 12.

The patient who was the subject of the fifth case, about a year after the illness described, was attacked with a slight fit of apoplexy, followed by hemiplegia. He was bled, and the bowels were opened. I saw him the day after the attack; it was recommended still to persevere in keeping the bowels open,

and the patient was prohibited the use of all fermented liquors and stimulating food. On the following day he was amended ; he had passed a good night, and had acquired some motion of the side affected. The next morning, being the fourth from the attack, I was sent for in a hurry, and found the patient had passed a very restless night ; but the cause of desiring my immediate attendance was on account of a fit, which had lasted for upwards of half an hour, and out of which he was just recovered, when I arrived. In the fit he was totally insensible, with blackness of the face and stertorous breathing, and, by being followed by a complete loss of motion of one side, it might be considered to be apoplectic. The paralysis of the side was now complete, the speech much impaired, the pulse full, and the countenance livid. Ten ounces of blood were directed to be taken away, a blister to be applied between the shoulders,

and the bowels to be more freely acted upon. In the evening the patient was reported to be worse, the side affected was motionless, the countenance hurried, the intellect confused, with much tremor of the hands, and pulse quick and unsteady. Under all the circumstances of the case, as it appeared at this time, (observing that the patient had, for the last eight hours, been getting alarmingly worse, and on consideration of his former illness, with the symptoms that indicated a return of that affection,) I determined to try what might be the effects of opium in this new situation. I felt convinced that further depletion and blistering would only augment the last affection; and, if it should be allowed to go on, I saw no chance of preserving the life of the patient. On these considerations therefore, it was determined to administer two grains of extract of opium immediately, and to repeat it in three hours. I was gratified on the next

morning to find my patient most materially amended. He had passed a very comfortable night, the tremors and confusion of intellect had almost disappeared, and the motion of the side was regained to an extent which could hardly be expected. The hand which was, on the previous evening, entirely deprived of voluntary motion, was now capable of wiping the face with a handkerchief.*

* It might be inferred, from the effects that followed the use of opium in this case, that it would be useful in paralysis, of which I have observed very abundant proofs in that species of this affection, attended by painful spasms. But it will be proper here to add to the statement of the effects following the use of opium in the above instance, a case which must place in some kind of doubt the share opium might have in taking away the state of paralysis the patient above noticed was described to be in, on the preceding night. After this tract had been written, I was called to see a patient, whom I found sitting up in a chair, and had hemiplegia. I was told he had been in a fit, accompanied by convulsions, for some hours, from which he had recovered to the state I saw him in. He

The future plan of proceeding consisted in keeping the bowels open, and in the use of opium. On the following night, three grains of extract of opium were given; and on each subsequent night, for some days, two grains, which were

was now incapable of utterance; but on his side which remained unaffected stood a table with a glass, which I found to be spirits and water, that the patient, in his present condition, was making efforts to reach, sufficiently indicating the baneful propensity of his gratifications, and the hold they had taken on him. In addition to the hemiplegia, he had tremors to a considerable extent, with a weak, but by no means quick pulse. As the patient had recovered much, I was inclined to hope that nature might yet accomplish more, especially as the subject was young. I therefore directed a draught, composed of camphor mixture and infusion of senna, with a small portion of compound tincture of cardamoms, to be taken every four or six hours. A blister had been applied before I saw him. On the following morning I found the patient free from paralysis, but with symptoms of delirium tremens to an alarming extent. Under these circumstances opium was directed, but the patient died in six hours afterwards, and I regretted that the latter

afterwards diminished to one. The patient, in a very short time, regained the entire use of his side. In about three quarters of a year after this confinement, he was again attacked with the delirium tremens, without any symp-

treatment had not been before adopted, which I was backward in proposing, because of the hemiplegia. From the experience of the events of these two similar cases of delirium tremens, associated with paralysis, it should appear that this latter disease ought not to divert the practitioner from the use of opium, which is so eminently beneficial in the other affection. The case now related, however, renders it probable that the hemiplegia, which nearly vanished in case the 15th, after the exhibition of opium, might have disappeared, though this medicine had not been had recourse to. In the cases of delirium tremens, connected with apoplexy and palsy in the commencement of the disease, these latter affections appear to be much less fixed than generally happens in apoplexy and palsy in their ordinary occurrence, and unconnected with this delirium; and the apoplexy is most generally accompanied by spasms and convulsions. But apoplexy coming on in the latter stage of the disease, is deep, and unvaryingly fatal.

tom of paralysis, and recovered by the free use of opium, and keeping open the bowels. This patient I attended with Mr. Cochran, of Greenwich.

CASE 13.

I attended the wife of a publican, with Messrs. Butlers, of Woolwich, who, on the present occasion, was in a state of drowsiness nearly amounting to coma, with diminished action of one side of the body. The patient was bled twice, and the blood was buffy; she was also cupped, and leeches were applied to the temples, and blisters were placed on the nape of the neck, and behind the ears; the bowels were kept open, and occasionally powerfully acted upon. Under this treatment, in about a week the comatose symptoms wore off, and the side affected regained, in a great degree, its action: but the disorder now changed very materially: the pulse,

which before was not at all accelerated, became quick, tremors of the hands came on, with considerable delirium; so much so, that the patient was, with difficulty, confined to her bed, and she passed her nights without rest. Under this situation, it was agreed to try the effects of considerable doses of opium, which soon subdued these symptoms, and the patient became collected, passed her nights comfortably, and got into a state of convalescence. She lived many weeks after this period; but was so given to indulge in the use of fermented liquors, that she would suffer no restraint on this subject, and died a martyr to this baneful propensity.

CASE 14.

A patient, whom I before stated to have attended with Mr. Green in delirium tremens, and is the third case in this account, was again attacked with

what appeared to the family, and to myself, on my first visit, to be a similar disease to his former illness. On the second time of seeing him, he showed evident symptoms of mental derangement, and finally became deranged. As opium had been of great use in his former attack, it was resorted to again, and given in increased doses of three and five grain pills, frequently repeated, for some days, without any material benefit. Afterwards, cupping, bleeding, and blistering, were resorted to, with similar want of success; and, lastly, the bowels were attentively acted upon. The patient continued, for some months, in a deranged state, and recovered. When it was perceived that the aberrations of the mind were employed about improbable suppositions, and preternatural appearances, and artifice, it was concluded that the morbid state of the brain was such, as not to be likely to be relieved by the plan which had proved

so successful under other circumstances and the family were made acquainted with this opinion.

CASE 15.

The delirium tremens, however, appears sometimes, to ordinary observation, to be a species of madness. I had an example of this kind when I resided in East Kent. I was desired to visit a patient, who had just arrived from London to be with his friends, and who was considered to be in a deranged state. On visiting him, his disease appeared to me to indicate the affection, which is our present subject, more than mania. On making inquiries respecting his habits, I was informed, by the person who accompanied him from London, that he had latterly given himself up to inebriety, and chiefly by drinking spirits. A free use of opium was therefore recommended, by which he became

tranquil ; and, though he never regained his health, he went about without the necessity of being watched ; and lived for many months afterwards, under no restraint, though in a low and uncomfortable state.

CASE 16.

After I had written thus far, I was called to a patient in delirium tremens, whose case I am desirous of communicating, on two accounts. The one, because the patient was first taken with a fit, which lasted some time, and on account of which he was bled largely. After he came out of the fit, which was considered to be apoplectic, he complained of violent shooting pains in his head, and was blistered and purged. It was the sixth day after his fit when I was called to see him. He had been so delirious for two nights, that it became necessary for a person of some

strength to be constantly with him. My second reason for wishing to communicate this case is, that there was an appearance of mental derangement about this man, mixed with the usual symptoms of delirium tremens, that caused me not to be sanguine in curing the disease. The patient was directed to take forty drops of tincture of opium, in a draught, every three hours, for three times. My first visit was in the afternoon. The next morning, when I saw him with Mr. Alstone, of Deptford, the apothecary who attended him, I found the patient had not slept during the night; but he had not so much tremor, nor were the pulse so quick as on the preceding day. The plan was, therefore, recommended to be continued, with this difference, that two grains of extract of opium were directed to be taken every two hours, until sleep was procured. The patient passed the following night tranquilly; and, in a few days, was at-

tending to his business in the shop, which is that of a little grocer at New Cross.

It has been remarked, in several of the above instances, that the parties attacked with delirium tremens have been given to drinking; and I feel firmly persuaded, that all cases of this disease are connected with indulgences of that nature. Such indulgences must, I presume, generally have gone beyond moderation or propriety, and have been continued for some time, before the peculiar circumstances which fit the constitution for an attack of this disease, have become fixed in the habit. It might, however, happen, that no great excess in them, owing to some peculiarity of constitution, may, in some, induce this morbid disposition to the disease, which, however, I never found to occur in a truly abstemious character. When the constitution has been so prepared for the disease, I cannot go so far as to say,

that this peculiar disposition will be immediately, or, after some time, eradicated, upon a change of conduct ; and therefore it would not be in contradiction to the opinion I have given of its cause, if persons should have this disorder who have been known, for some time previous to the attack, not to have indulged in fermented liquors beyond what, according to the present feelings and manners, may be considered to be reasonable. Of this I have seen some instances, in so far as my information has carried me : but it is to be remarked, that when habits of intemperance in this way, and especially in the use of spirits, are once established, it is difficult to break away from such indulgences ; and it not unfrequently happens, if there should be reasons strong enough to induce a party to desist publicly, that there will exist a private supply for this gratification in some way or other. It may also sometimes happen, that parties unwarily get into these habits,

to the great detriment of their health, and without suspecting what they are about; of which the following case may serve as an instance. Some years ago, I attended a lady with a disease that bore a strong resemblance to delirium tremens, and I entertained no doubt that it had been caused by the indulgences that are the immediate subject of our discourse. I however, for a few days, was not able to discover any other strong ground for my suspicions, than the symptoms of the disease. When my inquiries were nearly given up, a discovery was made by a domestic, which completely confirmed the opinion I had entertained. The patient frequently purchased large quantities of tincture of lavender, which she took by day, under observation, on a lump of sugar; but at night, and in her bed-room, it was evident she was in the habit of taking much larger quantities, as a liqueur glass was discovered, with the stains of the tincture

upon it, which, with other things, proved that the habit had gone much beyond what had been observed by the family. Disquietudes had induced restless nights; and there can be no doubt the patient had then frequent recourse to this, for a time exhilarating, but pernicious dram, when she would probably have been shocked to have taken the same quantity of brandy. The disease, in this instance, was subdued by large doses of opium; and the patient's future conduct placed her in possession of health, which she has, for some years, uninterruptedly enjoyed. But, that fermented liquors, and more especially spirits, are the general causes of this disease, is rendered certain, by the frequency of it in situations where the indulgence of them can be had at a reasonable rate. On the coast of East Kent, where I was first led to distinguish this affection, and at the time alluded to, spirits brought in by smugglers might be had in great

abundance at a cheap rate; and such as laboured under delirium tremens in that quarter, were mostly those who confessedly indulged in the use of spirits to excess.

The histories which have now been given, show, by inference, some strongly, and others in a more remote degree, that delirium tremens is an affection of the brain, in which some morbid change might be expected to be found, upon an investigation of the contents of the cranium. The only direct evidence I can give of what this may occasionally be, is from what was detected, on inspection of the brain, in Case 10, which will by some, perhaps, be received with suspicion. Independent, however, of the injury the person was supposed to sustain, this appeared to me to be a true case of the disease; and I suspect the violence which was suffered, was not the cause either of the disease, or of the appearances upon opening the

head; no rupture of vessels, no appearance of violence on the inner part of the skull, nor on the dura mater, was found; and the circumstances that were discovered, might have been expected to occur after death, from diseases of the head, not necessarily arising from violence. It may next be observed, that we have three instances, in which delirium tremens appeared after fits of the apoplectic kind (Cases 11, 12, and 16), one of which was succeeded by paralysis, and two in which sudden death happened at no great distance of time from the attacks (Cases 2 and 7), and a case of the disease succeeding coma (Case 13); all which concur to induce strong presumptive proofs, that the disease may, in its fatal termination, be connected with some of those consequences which attend some other affections of the head: and it would have excited no surprise, to have detected water between the membranes, with ful-

ness of the veins of the brain, in any of these latter cases alluded to, had death happened to ensue.

In regard to the similarity of this disease to idiopathic phrenitis, it may be remarked, that delirium tremens is an idiopathic affection of the head, that it begins ordinarily without any previous febrile attack, that in a violent paroxysm it is attended with considerable insensibility and wandering, with much restlessness and exertion. In these respects, in the height of the disorder, the diseases appear to be similar. This delirium, however, will not generally commence with an exacerbation of fever, nor so suddenly as in idiopathic phrenitis ; but it may often be learnt, on inquiry, that the disease has been coming on for some days, and even for a longer time occasionally. In this delirium there is no great intolerance of light, though the parties attending such a person will cause the windows to be closed, be-

cause light increases the desire for exertion. The disease is constantly associated with considerable tremors from its very commencement, and in its least violent state, which are not considered as necessary attendants on phrenitis. These tremors are not noticed by Sauvages, Cullen, or Hoffman, nor by Van Swieten, as a symptom in phrenitis ; but only in so far as the latter details the opinions of Hippocrates and of Galen. It must, therefore, be evident, that tremors occurring in phrenitis, which, in the ordinary acceptance of the term, they have been frequently observed to do, were considered as an accidental, not as a necessary, symptom of the disease. Hippocrates often mentions tremors, and after him Galen, as highly to be feared in phrenitis. Lieutaud also particularly notices them ; not, however, as necessarily connected with phrenitis, but, when they occur, as foreboding much danger. This symptom is like-

wise introduced into the history of phrenitis, under that article, in the Edinburgh Practice of Physic; afterwards, however, in the prognosis, it is placed with the symptoms indicating a fatal termination of the disease, which, because the disease is not described as always being so, shows that tremors were not considered to be necessarily present in all cases of this affection. The truth however is, that tremors are rather a symptom of a peculiar disease, which has been hitherto generally considered to be phrenitis, and, when treated as such, has proved to be very fatal. There cannot therefore, I presume, be any proofs more strong of the importance of the practice stated through the Cases to have been pursued, than the generally successful termination of a disease under its use, which has been considered to be the most fatal form of phrenitis, while treated as such.

It has been said, that delirium tremens

was not necessarily connected with fever, though four instances have been related, in which the disease followed acute rheumatism, scarlatina, and typhus fever, and might have been supposed to be connected with those affections as a cause. In so far this may be allowed, or supposed, that the delirium tremens would not have then occurred, if the previous diseases had not taken place; but it does not therefore follow that they were the essential causes of this affection. It has been before stated, that this is a disease depending on a state of habit brought on by certain indulgences, which renders it the precise disease it is. These fevers, therefore, must be considered to be incidental, not necessary and essential, causes of the attacks of this delirium. In like manner, fatigue, inordinate indulgences, inducing fever, inquietudes of mind, &c. may be the occasional, though not the essential, causes of this affection, which consists in

a previous state of the brain, that, under circumstances, is capable of producing the peculiar disease treated of.

It has been likewise perceived, that delirium tremens has happened in the same subject with mania; and one case has been related, in which this disease, in a chronic form, was considered to be mental derangement: hence it may be inferred, that a similarity exists between the complaints. But to me the distinction appears generally easily to be made, and no less usefully to be observed. The mind, in delirium tremens, is occupied and worried about private affairs; and in this there must be necessarily some confusion of ideas; but this is the burthen of what the patients talk of in the exacerbation of the disease. The exertions they make have all a tendency to accomplish this end, to be where their affairs are going on. To effect their purposes, however, they use no artifice, nor are passionate or malignant, though

violent in their efforts to accomplish their wishes. In other things they are easily persuaded; as, for instance, to take their medicine, about which no difficulty in general arises: in addition to which, the memory of what has immediately happened, appears to be obliterated, and, on recovery, their illness seems to them an illusion.

The tendency to sweating has been, by some authors (Lieutaud, &c.), considered to be a favourable sign in phrenitis; but in delirium tremens it is neither favourable nor otherwise. It is a very constant symptom in this disease; and though not so uniformly accompanying it as tremors, yet it may be considered to be the next in constancy of attendance to that symptom.*

* Doctor Saunders entertains an opinion, that profuse sweating is an unfavourable symptom in this species of delirium, and it certainly continues to the point of dissolution very frequently. But, from the observations I have made, many cases

Some authors have described phrenitis to be accompanied by a dry, brown, black, and rough tongue ; and an instance has above been stated, in which delirium tremens has been found with the tongue covered with black sordes ; but this occurred after typhus fever. In the greater part of patients, however, under this delirium, the tongue is moist, though coated with a white fur. Patients under this affection are frequently not inclined to thirst, which appears to indicate nothing respecting the event of the disease, though, from very ancient times, the want of thirst has been handed down as a very unfavourable symptom in phrenitis.

recover under the most profuse and continued perspirations, and even when they have appeared of the most unfavourable qualities, such as being clammy, cold, and offensive. I have therefore considered profuse sweats in the ordinary way as forming no precise indication of recovery or otherwise, and have certainly never judged them to have any favourable tendency.

The account now given shows, in a conspicuous manner, the beneficial effects of opium in delirium tremens. A very sparing notice, however, has been taken of those remedies, which were exhibited with it. This has been advisedly done, that the salutary powers of opium should distinctly appear, the attention not being diverted from the chief remedy, by detailing a compound prescription; and to place the cases in as little compass as possible. The other medicines, however, that were at the same time prescribed, were, with the exception of purgatives, more to be considered as given for the sake of form, than as depended upon to produce any material effect. When the bowels had previously been attended to, camphor mixture, or peppermint water, coloured with conf. aromat. or syr. croci, were given with the opium, and in two instances a small quantity of tincture of castor with peppermint water. When the bowels were in a confined state,

opium was given, in conjunction with opening and purging medicines ; but, so given, the purgative seldom operated before material relief was procured, and could not therefore be judged to be a considerable cause of the cessation of the disease. In my account of the remedies which were employed, previous to giving large doses of opium, I have been more particular, because it was proper to show, that the remedies usually resorted to in cases of affection of the brain, had been employed by others in their endeavour to cure the disease, and also that they had not been neglected by me, and had been relied upon so long, in some instances, as could be done without great risk to the patient.

A question may be here introduced in regard to the proper time of administering opium, and whether, by a more speedy recourse to it, success might not be more completely insured, and the most dangerous part of the disease

prevented? To this I cannot reply so distinctly as I could wish. Considering the remedy as an unusual one for a disease of this kind, though highly efficacious, I have been cautious not to exhibit opium in the manner stated, except in such cases as appeared to me to be decidedly delirium tremens; and, until the general concourse of symptoms are established, this cannot be clear and definite. An extension of the practice, therefore, if it should admit of this, as above hinted at, must depend upon future observation. It may have been remarked, that in a few of the cases small doses of opium were exhibited, but without any such effect as might perhaps have been expected, considering that large doses of this medicine are so highly advantageous. In these cases, the smaller dose of opium did not tend to arrest the disease. The quantity of this medicine that may be employed, may be better collected from the cases, than from any

general rule which can be laid down: but it is worthy to be remarked, that under circumstances of this and of other diseases, patients unused to the remedy will bear a quantity of opium to be administered with benefit, which under other circumstances, and in health, would probably occasion death. It cannot therefore be certain, in any of the stages proceeding towards a complete paroxysm of delirium tremens, that the state of the disease, or powers of the habit under it, would be such as to allow opium to be administered in such large quantities as have been observed to be borne under the complete paroxysm of the disease. This consideration should, of course, have some weight in laying a restraint upon its use in any other circumstances of this disorder, than those of strong and decided proofs of its existence.

It is evident, from what has been before stated, that this delirium has been

usually attempted to be cured by those methods which have commonly been resorted to in serious diseases of the head. These have for their object, to remove the causes of the disease, which are generally considered to be fulness of the head, effusion, or extravasation of blood. The two latter of which, however, from what we know of the anatomy of the brain and its functions, can hardly be expected to be quickly removed by any means in our power, as we are not able to detect any vessels of the absorbent kind in the brain. The immediate aid, therefore, which might be supposed to be effectual in relieving the head, under such affections, would be, in so far as the influx of blood to that organ could be hindered, diminished, or diverted. This has been, in such diseases, endeavoured to be effected by blood-letting, blistering, and by purging, which may be supposed to have the effect of removing the fulness of the

vessels in the head. I shall therefore make a few remarks upon the efficacy of these remedies, in so far as delirium tremens is concerned. In some cases of this disease, the most proper remedy might appear to be blood-letting, more especially as the brain seems to be considerably affected; and I have drawn the conclusion, that it is probably palpably so upon inspection, in many cases of this disorder. But whatever might appear on dissection, cannot alter the facts which tend to establish the efficacy of opium in the cure of the disease. And though the conclusion I have drawn respecting the affection of the brain in delirium tremens, appears to rebel much against the present theoretical use of the remedy which has been principally recommended, I have been induced to give it connected with all the weight of facts, because I judge nothing should be withheld which may be calculated to elucidate a disease of such peril. With

the same views, I shall now state, what I have observed on the subject of blood-letting in this disease, and hence to what extent I could recommend its employment in the cure. In a very early stage of the paroxysm, if in a plethoric subject, blood may be drawn; but I do not recommend the practitioner to wait to see the effects of it, with a view of repeating the operation, as thereby the life of the patient may be endangered. I should advise, in such instances, after blood-letting, that recourse be had to the use of opium, in the manner pointed out in the cases, and pursued to the extent required, as the sole remedy for this disease. When blood-letting has been employed, and principally relied on, I have observed a fatal termination of the disease in almost every case, though the indication, as to habit, for its use, appeared strong and decisive; and I have witnessed the cases of this disease to be always, on this account, the most rapidly

fatal in robust and plethoric persons, where blood-letting was most used, without the aid of opium. On the contrary, when, in such habits, the delirium tremens has been endeavoured to be overcome by opium, the result has been the most favourable, because the constitution in these cases is less broken down. But the success of this remedy, it must be always kept in mind, is not to be promised, unless it goes to the extent of inducing rest or tranquillity ending in sleep. I do not judge blood-letting to be absolutely necessary in any case of this disease, when the paroxysm is formed; but I cannot say that its use has rendered the employment of opium less successful in its cure; and therefore the practice may be employed when strong evidence of plethora exists. I have found opium so capable of relieving all the symptoms, as to want no aid; and therefore, if the disease has continued for some days, I

should not be inclined to lose time, by employing other remedies.

I cannot speak so favourably of the use of vesicatories in this disorder, as of blood-letting. It is frequently, and now almost generally, said, that blisters, though they may not be useful, are always harmless remedies, and therefore they are often very loosely employed. In diseases of the head, their not being used would augur, with some, a neglect of a necessary remedy. My observation, however, has not taught me to regard the operation of blisters as so very inoffensive in many diseases, so as to render them remedies, or merely harmless applications; but in none are they more conspicuously detrimental, according to my experience, than in this disorder. I never saw a blister employed in the paroxysm of this disease, that did not occasion great irritation and augment it considerably, and even retard the

effects of opium. I should, therefore, be very cautious of ever giving countenance to their employment, under these circumstances: although in some instances, in the cases, there appears to be a contradiction in my practice to this statement: but it may be remarked, that a practitioner must occasionally forego, to a certain degree, his opinion, in conformity to popular prejudice; and, in the cases alluded to, blisters were not applied at the period above pointed out; though, as there used, they were prescribed with reluctance.

On the employment of purgatives I must first remark, that they are not a cure for the disease, though the use of them in this disorder may aid the effects of opium, and a pertinacious state of costiveness may retard its salutary operation. The bowels should therefore be attended to in every proceeding, in the cure of this disease. But it is not of so much consequence to wait for the operation

of the bowels, as to delay the use of opium. Purgatives, therefore, may be given in conjunction with this remedy: and when the symptoms remit considerably, and the bowels have not become open, the use of opium may be suspended for a little time, to favor the operation of cathartics, and again resumed, as occasion may require. Sometimes the bowels, after taking considerable quantities of opium, will require large and repeated doses of purgatives; but I have never seen a case in which this state of costiveness has not been overcome; nor is it attended with trouble in regard to pain or sickness: but the doses of purgative require to be carried occasionally to a considerable extent, which the practitioner would be better satisfied not to be obliged to do. By large and repeated doses of these medicines, however, under these circumstances, I have not observed an instance, in which distress has been occasioned from hypercatharsis. Injections,

by way of clyster, are useful in aid of purgatives taken by the mouth, under great pertinacity of the bowels brought on in the manner above stated, and may be very properly employed at all times.

Though the cases above related may claim attention as insulated facts, yet it is proper to offer reference, as decisive as can be gained, by which the success of the practice may be compared. It cannot be expected that a disorder so connected with serious affection of the brain, or at least great disorder of its functions, can by any method of cure be universally conducted to a favourable termination; and therefore in such a disease the estimate of the success of a practice may not only rest upon the celerity with which a disease is conducted to a successful issue, but also on the comparative mortality accompanying it. Within the last three years twenty-two cases of delirium tremens have fallen under my care, which

will show that this is not a very infrequent disease ; four of whom have died : and it may not be improper to state some circumstances respecting them. The first of these cases died within six hours of my having seen him. The second was the case of a man in years, who appeared to be in a state not likely to survive for twelve hours : but he was so materially relieved by the use of opium, that he lived four days ; and was so much amended during one part of that time, as to afford some hope that he might survive. This man was given to a most inordinate use of spirits. The third case was of a man in the prime of life, whose habits and immoderate indulgences had manifestly brought on the disease, under which he had laboured for four entire days. When I saw him he had no knowledge of any one around him, he was constantly catching as if at objects near him, his pulse was very quick and debilitated, and the eyes much inflamed ; over

one of which a film was drawn, such as is observed frequently in a dying person. The patient lived three nights and two days after my first visit to him. I will generally observe, in regard to these three cases, that nothing would have given me a shadow of a hope, excepting the beneficial effects, which I have experienced from the use of opium in apparently desperate cases of delirium tremens; and I think it may be proper here to notice, that such is the impression I have received respecting its efficacy, that I judge no case of this kind should be absolutely despaired of, while this remedy can be employed; and I recommend practitioners to keep this in their recollection.

In respect to the last patient, I must confess, from all I saw, I entertained a better opinion of the result. He lived at a short distance from me, and I heard of his death some time afterwards, which, upon the whole, proved a dis-

appointment to me. To make this comparison complete, it wants,—what I am not able to give to it with accuracy,—a statement of the relative mortality in this disorder, under other methods of treatment. But what I should conclude, though imperfect, and which I leave to the correction of others, is, that under the mode of proceeding for the cure of this disease, which is usually adopted, the favourable average of recoveries would not be more than one in three; which, if confirmed by other observations, will be the best proof of the importance of a more diffused knowledge of the practice now recommended, than it has hitherto obtained.

It may, in this place, not be improper to remark, that opium proves a cure for the ravages of a disease which is brought on by the inordinate use of fermented liquors. Yet it may be observed, that for many years, in theory and in practice, the effects of opium have

been acknowledged to be analogous and similar to them. If, however, no other reason did occur, surely the very facts that have just been related should bring this opinion into suspicion. Let it be supposed that spirits were substituted for opium, in violent paroxysms of delirium tremens, until sleep was induced, what would be the conclusion of every medical man respecting the result of such a treatment? But let him go on and suppose that death did not happen from their employment, would he not expect every thing except comfortable feeling, from the result? and that the pulse would be irritated and quick, and headach and nausea, with disposition to vomit, and loss of appetite, would occur? Let him suppose it possible, that he goes on from day to day in the use of spirits as a remedy, in the way that opium has been employed in delirium tremens, has there not been sufficient experience of their effects, to be able to conclude, that the

morning would never be ushered in with tranquil feelings, but rather accompanied with the horrors which follow a disgusting debauch? The reverse, however, of these takes place from the use of opium in this disease. The patient begins to lose the urgent symptoms of the disorder, he passes comfortable nights, his tremors vanish, his faculties of mind are restored to him; his pulse, from being quick, becomes tranquil and calm; his appetite returns, and in a few days he begins to feel himself a being to whom death appears not to have made any near approaches. If, then, such discordances exist, it may be worth while to reconsider these opinions, and at least to doubt them, unless the effects of these substances can be made more unequivocally to approach, on stronger and more decided grounds. In the mean time, that which cannot be so well supplied by theoretical views of their operation, may be learnt by an observation of the

effects of each, and will better qualify the practitioner for their advantageous employment, than all the speculations in the world.

*Observations on PERITONITIS, and on
some other Internal Inflammatory Af-
fections.*

INFLAMMATION of the peritoneum is not unfrequently an obscure disease; it is attended with considerable danger to the patient, and often difficult to subdue. When this disorder does not prove fatal, it may lay the foundation for a series of infirm health, by forming adhesions with the peritoneum and neighbouring parts; it becomes not unfrequently the origin of dropsies of the abdomen, and may often be the commencement of diseases of the intimate structure of the different organs in the abdominal cavity. This disease frequently begins its attacks slowly, and thus insidiously arrives at a considerable degree of violence, before the patient or friends are aware of danger. In such cases it may be perceived, upon inquiry, that the patient so attacked has suffered

uneasiness in the belly for some time, which being connected with lowness of spirits, has been considered to be hypochondriasis ; at other times, as the appetite has failed, without any very evident local disease, but a general uneasiness arising from apparent distention of the bowels, it has been thought to be indigestion ; and under such state, with pulse somewhat accelerated, with languor and depression of spirits, the disease has been denominated nervous. In all these forms I have perceived peritonitis slowly to advance, and its apparent chronic stage to precede the acute : but even this insidious manner of approach will usher in an attack that may deprive the patient of life. Such circumstances as these are not however sufficiently noticed by authors in their histories of peritonitis ; but which, nevertheless, appear to me of importance to be particularly adverted to, for the purpose of turning the attention of practitioners to the disease in its

more obscure forms, lest, by misapprehension, an inflammatory affection should be mistaken for one of an opposite character. Nor are we apprized from these sources, that peritonitis is a disease which is very liable to relapse, and hence that much prudent care becomes necessary to prevent such unpleasant occurrences. Some of these particulars, it is judged, may probably be best learnt by example; and, in like manner, the effects produced by an alteration which has been adopted in the treatment of the disease, may be best appreciated. As this has been attended with the most favourable results, it has for that reason become an important part of the present tract, and has been the cause of the inquiry being extended to the treatment of some diseases of the thoracick cavity.

CASE 1.

A worthy and meritorious naval officer, in the prime of life, sent to consult me

about his indisposition. The patient was represented to have been low and dejected for some little time, that he had lost his appetite, and had grown weak ; he had swimings in his head occasionally to a considerable extent, commencing, however, by his perceiving an uneasy sensation about the umbilical region, a little verging to the right side. This uneasiness was increased by pressure on the part, and always perceived after meals. The bowels were rather inclined to be costive, and the pulse appeared to be feeble and about 90 ; the surface cool, and the hands bedewed with a cold moisture. The family, unfortunately, considered the disease to be nervous, and thought the patient wanted support and strengthening medicines ; and although I explained that the origin of this affection was local, and in the nature of inflammation, I could not incline them to listen to any plan that had for its object to subdue such a disease. I therefore directed what I was allowed by

way of medicine, which was to keep the body open, and to apply a blister to the part affected. With all the force I could, I urged the necessity of great moderation in diet, and the use of bland food of neither stimulating nor very nutritious qualities. I however afterwards learnt, that the most nourishing soups were prepared for the patient, for the purpose of support, and wine taken, though strictly prohibited. In about three weeks from this time, I was again sent for. I found the patient had been attacked with a shivering about sixteen hours before this visit. For twelve hours he had been in much pain in the part affected, on the right side, joined to great anxiety and restlessness. The pain had now left him, he had a great confusion of intellect, with a pulse 140 and indistinct, quick breathing, anxiety of countenance, with a most profuse clammy sweat. He had been bled in a very sparing quantity, which was not more copious, on account of the erro-

neous notions the family entertained of the disease ; a blister had been applied to the part affected ; the bowels opened by purging medicines, and afterwards some saline draughts given. Under the present circumstances, I gave it as my opinion to the family, that the patient was in the utmost peril, and that the chances of recovery were very inconsiderable ; which, however, appeared to them to want sufficient foundation. With this state of disease, I did not judge it right to recommend a repetition of blood-letting, but advised the bowels to be more acted on by the use of injections, and directed some saline medicines. The patient was, however, immediately placed under the care of another practitioner, and died in less than thirty-six hours from my seeing him.

CASE 2.

A clergyman, about sixty years of age, was unwell for some time, before a violent attack of the present disease came on. At

first he could complain of nothing specifically, but found his appetite diminished, and, on eating, unpleasant feelings; his powers for exercise much decreased, and his respiration not free, though not painful. Two days before I saw him, he had applied for relief to a respectable surgeon in his neighbourhood, who took a few ounces of blood from him, which was not buffy. He did not think the indication for bleeding to be very strong, but judged the operation to be advisable rather than not, and he was willing to observe its effects on the disease. When I visited the patient, I found him sitting up in bed, and learnt that he had been, for several hours, in great distress with difficulty of respiration, increased much upon placing himself in a horizontal position, which he of course endeavoured to avoid. There was no cough present, nor wheezing, nor paucity of urine, nor swelling of the legs. The pulse was free and distinct, but beating at the rate of 160 in the minute. The patient com-

plained of no local pain. These circumstances occasioned me, in conjunction with the attending surgeon, to form an opinion, that the disease was not in the chest. The patient had never suffered from gout, therefore we had very slight grounds to suppose the disease to be spasm from a gouty cause. But the quickness of pulse was so alarming, as alone to excite the greatest apprehension for the result, to which a profuse clammy sweat was joined, with great anxiety of countenance. Though the pulse was so quick, it was remarkably distinct, and to such a degree as I had never before observed under disease*, and which in some proportion

* It has been often said, when the pulse arrives at 160 it can scarcely be counted; but this is more owing to the irregularity or debility of its pulsation, when it arrives at that degree of quickness, than from any other cause. There was in this case no difficulty whatever in counting a pulse of 160, and I once met with a pulse equally quick, in a subject enjoying perfect health, in whom it could be counted with the greatest ease.

diminished our apprehensions. In this state of things, there did not appear sufficient grounds to recommend a repetition of blood-letting; and it is not certain that it would have been now determined upon, if inflammation had been known to exist, because, with such symptoms in an acute disease, it very frequently happens that the disorder proves very rapidly fatal; and it was well known, should such an event have taken place, that the operation of blood-letting would have been considered to have been indiscreetly recommended. It was, therefore, thought right, to endeavour to relieve the apparent spasm, from whatever cause arising. For which purpose, two grains of solid opium were directed to be given in the form of a pill, some draughts with camphor mixture, a small quantity of gum olibanum, with a few drops of ether, were directed to be taken every four hours, and a blister to be applied to the scrobiculus cordis. In the afternoon of

the following day I again saw the patient, and learnt that he had fallen asleep, and continued tranquil for some hours, after he had taken the anodyne pill; but that the paroxysm of difficulty of breathing had returned to a great extent, after an abatement in violence of upwards of twelve hours, when another pill of opium had been given, which had not procured equal relief. The patient, however, did not now appear so alarmingly ill as on the last evening; nevertheless his difficulty of respiration was represented to me to have been worse than on the former day, and it was now very considerable, with copious perspirations; but the countenance was improved, and the pulse had experienced a favourable change. I found it 120 distinct, contracted, and hard. Upon going over my former inquiries, I judged the disease not to be in the thorax; and the suspicion that the difficulty of breathing might arise from water in that cavity, which some of the symptoms seemed to

indicate, was no longer entertained. From a review also of all the particulars of the case, I concluded that the concave part of the diaphragm was the affected part, and that the disease was peritoneal inflammation. On this conclusion the patient was directed to be bled, but it was resolved to know something of the state of the blood before this evacuation was carried to the extent proposed ; for which purpose about eight ounces of blood were first drawn in two portions, and allowed to stand to separate, which soon showed a considerable coat of coagulable lymph. With this additional fact, the blood-letting was increased to upwards of sixteen ounces, with evident advantage. Aperient medicines were now directed, and the opiate to be again administered at night. In the course of the following morning, on an exacerbation of difficulty of respiration, venesection was again repeated to twelve ounces, and on the same occasion for a third time to eight ounces.

I visited the patient six days, and the disease gradually yielded to the treatment above laid down, an opiate being given every night. Though much weakened, as might be supposed, from so serious an attack, he became well enough, after some time, to undertake his clerical duty. About five months afterwards, he was attacked with paralysis, which was alleviated by blood-letting, opening medicines, by a seton in the nape of the neck, and by a strict attention to diet; and though it is probable this last affection will not be entirely overcome, yet with prudent conduct on the part of the patient, it may not for years affect life. The former disease I judge to have been seated in the concave part of the diaphragm. Whenever the patient, either by accident or design, got into a horizontal position, the pressure of the contents of the abdomen upwards, I apprehend tended much to augment the difficulty of respiration,

which caused the patient studiously to avoid that position. There was not the least tenderness on any part of the abdomen, which was subjected to pressure, nor in the region of the liver. It is impossible to state what was the extent of such an inflammation, and whether it might not extend to the peritoneal coverings of the viscera in the direct neighbourhood of the lower surface of the diaphragm. There were, however, certainly no direct signs of disease of the liver during any part of the attack, nor subsequently, nor was the stomach affected with either pain, nausea, or vomiting. In conclusion, no disorder whatever, indicating affection of the chest, has occurred.

A similar case, in respect to symptoms, came under my care some time previous to the last; the event of which, while I visited the patient, strengthened my determination in regard to the treatment of that which has just been related. The

patient was a man about fifty years of age, and who had suffered from the gout. The attack of disease in which I saw him, was of twenty hours' duration. The patient was obliged to be in an upright position in bed, the respiration was so much affected as to cause him to utter a moan at every effort, though not from pain, but distress; he was in a profuse sweat, with a pulse about 130, and full. There was no material affection of the chest. The disease had been attempted to be relieved by warm fomentations and antispasmodic medicines, without effect. Under these circumstances, I recommended blood to be drawn, which exceeded sixteen ounces in quantity, and was found to be very much inflamed. Medicines of a purgative quality, joined with opium, were also prescribed, with a blister to the pit of the stomach. On the following morning the patient was much better, but the bowels had not acted. On the two following days, the bowels acted

freely, and opium was given occasionally. On the fourth day of my attendance, I took my leave, as the patient was in a convalescent state. This patient died some months afterwards, but not under my care, and I heard he had a liver complaint; the account however of his latter illness could not be satisfactorily relied on.

CASE 3.

A gentleman consulted me on the subject of some obscure pains he experienced on the right side, midway between the ribs and fore part of the ilium, which were not then increased upon pressure. He said he had, for some time, laboured under a disease which his medical advisers in town had not formed any precise opinion about; but he had been cupped, used the warm bath, and had taken opening medicines, without perceiving any other than temporary advantage. He had since applied to another source,

and been dissatisfied with the result. The patient complained that he felt uneasiness with any thing of a shaking motion ; but as he came to me in his carriage, and did not immediately meet with me at home, he had driven about under the idea of falling in with me. I found his countenance good, the pulse natural, but he expressed himself to be extremely uncomfortable and low, with depression of spirits, want of appetite, and when he did eat he became worse after it. I directed some opening medicines, and a soap plaster to be applied to the part affected. But before the medicines could be got home, I was sent for, and found the patient in considerable pain, augmented on pressure : he was directed leeches and fomentations to the part, and afterwards a blister, and the bowels to be freely acted upon. The pain wore off to a certain extent ; but in two days I was sent for in some haste, and found the patient in great pain, in a profuse clammy

sweat, with a pulse of 120. Under these circumstances, I judged it proper to recommend blood to be drawn to sixteen ounces, which quantity was exceeded, and which afforded much relief, though the blood was not sisy, but tough. From this time the disease gradually got better, but returned twice, with the interval of a fortnight between the attacks. The third being violent, I considered it to be advisable again to recommend venesection to some amount, which occasioned relief; but the second attack was comparatively mild, and the loss of blood was trusted to leeches. The other part of the treatment consisted in the use of warm fomentations, blisters, and purgative and aperient medicines, chiefly with sulphate of magnesia, and infusion of senna. The patient has had no further severe returns of this disease, though for some time he was frequently unwell, and obliged to use much caution in his mode of living and exercises. The dis-

ease, as appears, came on in a lurking obscure manner, was some considerable time before it arrived at a violent paroxysm, and was not subdued for upwards of six weeks, though much abated in the intervals of the attacks.

The expressed seat of the disease was at a considerable distance from the kidneys, and in a line drawn from the anterior spinous process of the ilium, parallel to the linea alba. The seat of the disease is more particularly stated, because, previous to these violent attacks, the patient had perceived small quantities of blood to be discharged once or twice with the urine, though nothing of the kind had occurred during the period just detailed, when this secretion was copious, of proper colour, and varying as it is known to do in attacks of fever, and was every day inspected, while any urgent symptoms remained. Afterwards the appearance of blood in the urine was again occasionally observed,

though in inconsiderable quantities. This discharge was probably excited by the same cause as a similar one, which was noticed in the following case, though originating from different organs.

CASE 4.

A young lady about six years of age, was attacked with an uneasiness in the abdomen, with fever; the bowels were opened without difficulty; and when I saw her, the day after the commencement of the attack, the tongue was coated, the pulse quick, and she expressed uneasiness on my touching the belly, but the violence of which was not constantly in one part. Upon getting into an erect position, the pain was increased, or in any effort which required the action of the abdominal muscles; but in a horizontal position, and on her back, she was much the easiest. The whole of the pain was evidently connected with the anterior parietes of the abdomen, occupying more particularly

the right side, and most of the pain was in the right flank. I judged this disease to be peritonitis, and accordingly directed leeches to the part, and to encourage the bleeding by warm fomentations, and afterwards to apply a blister; to keep the bowels open by repeated doses of saline purgative, as had been done before I saw the patient. In four days, by this treatment, the patient became much better, and was soon in a convalescent state. In somewhat less than two months I was again called to visit her, who now complained of the same sort of pain, but had some uneasiness in discharging the urine. I however found, after the former attack, that she had suffered from some sores on the labia, with a slight discharge, which had been shown to a surgeon, who had directed what had occasional much relief. The present attack was endeavoured to be combated, as the former, by the use of leeches, warm fomenta-

tions, and saline opening medicines ; but the parents being very anxious respecting the child's state, requested to see Doctor Saunders with me. On our visiting the patient together, we found the belly tense, and painful to the touch. Evacuations had taken place a little before, and no material costiveness had previously occurred. The pulse was quick, and the tongue coated. Under these circumstances, Dr. Saunders expressed a perfect coincidence with me in opinion, and the case was conducted as before, and recovery ensued. An attack of a similar kind, though not so violent, happened two months afterwards, and gave way to the same mode of treatment. Since which, four years ago, by strict attention to regimen and diet, no return whatever of this disease has been experienced. In this case, in the intervals of these attacks, small quantities of blood were twice observed to flow from the vagina ; and I see no

reason why we may not consider the hæmorrhages alluded to in the two immediately preceding cases, to be efforts of nature to unload the vessels of the neighbouring parts, through natural outlets, in the same way that hæmorrhage from the nose occurs, and is occasionally beneficial in affections of the head.

CASE 5.

Mr. Hurt, apothecary and chemist, residing on Deptford Bridge, about a month previous to the attack, which will be more particularly adverted to, consulted me on the subject of a disease which had been very painful to him for some time, and of which this was the second attack, after a short interval. He described it to be about an inch and an half round the navel. He had been advised to apply leeches, to use fomentations, and to blister the part; from which remedies he thought himself

somewhat relieved. Under the circumstances I found him in, I recommended him to keep his bowels well open, and if there should be any material return of the disease, to have blood drawn from the arm to the extent of from sixteen to twenty ounces, which the present state of the habit appeared to me to be capable of allowing. In about a month from this time I was again desired to see him. He stated, that he had never been well from the complaint he consulted me about, but that now he was in great torture. He had considerable febrile heat, coated tongue, and a pulse one hundred and ten and upwards, with nausea and vomiting. The local affection was in extent nearly circular, with a diameter of about three inches, making the navel its centre. The sensation of the patient was that of a burning heat, with shooting pains, and a feeling of great weight in the part. The patient had had recourse to

leeches, blisters, and fomentations, as before, but with no effect. I recommended blood to be drawn to the extent of sixteen ounces, and the bowels to be kept open. He was afterwards bled five times, to twelve, ten, and eight ounces, as the symptoms appeared to require, without any satisfactory progress being made. In addition, the part was fomented with the decoction of poppies. This was the treatment pursued during the first week of my attendance, and to about the tenth day of the violent return of the disease. It was next determined to try the effects of more active purgatives than had hitherto been done, with the addition of small doses of opium; the latter for the purpose of relieving pain, and repressing the tendency to vomit. By this plan, the bowels appeared to be completely evacuated of their contents, but without any material amendment ensuing. Recourse was then had to considerable doses of opium to

relieve the disease, which had certainly the effect of mitigating pain, while the patient was under its powerful influence; but it did not appear to diminish the disease otherwise. Local bleeding was then employed again, and a blister applied, but these produced no perceptible advantage. The disease had now continued about three weeks. The local affection was very little abated, the pulse was somewhat diminished in frequency, and a fulness and hardness painful to the touch in the part affected, within the limits above described, had become much more evident, and particularly attracted the attention of the patient. Under these circumstances, I suggested the use of a common emollient poultice, but found it increased the local affection considerably. On this report, I determined to recommend the patient to employ a lotion composed of equal parts of *aq. ammoniæ acet.* and water, with half an ounce of rectified spirits to

eight ounces. In two days afterwards, I called, and was gratified to find the patient much amended. He stated, that, from the very first application of the lotion, he had experienced relief, and that his pain returned only occasionally, when the use of the lotion repressed it. From this time the patient might be considered to be convalescent. The only things afterwards advised, were to keep the bowels open, to be moderate in the use of food, to avoid fermented liquors, and to use the lotion as frequently as might be found necessary. Since which time, (about a year,) I have uniformly heard a good account of Mr. Hurt's health.

CASE 6.

About a month after the termination of this case, I was called to a gentleman, who appeared to be labouring under considerable pain of the bowels, and had at the same time a rigor, which

was like the cold fit of an ague. He had discharged the contents of the stomach spontaneously. I was informed that he had come to Greenwich for the benefit of his health, after an attack of disease somewhat similar to the present. It was also stated to me, that the appetite had been very good, though in a recently convalescent state, and that the patient had usually taken some wine after dinner. Under these circumstances, I judged it proper, for the present, to endeavour to evacuate the contents of the bowels, which was effected by the aid of calomel, extract of colocynth, sulphate of magnesia, and a clyster, to a satisfactory extent. I saw the patient again, in about two hours, when he began to be hot, and he then informed me, that the late attack of his disease, and the one he had laboured under about twelve months ago, appeared to him to be similar to the present, only that those had not commenced with

rigors, nor were they attended with vomiting, nor so extended as now, as the present disease occupied the right flank, which was the original seat of both previous diseases, and stretched through the epigastric region. He was recommended by the physician who usually attended him in London, in case of a renewal of an attack of his former disease, to have immediate recourse to blood-letting. As, however, the commencement of the present appeared to differ, in some particulars, from the preceding attacks, I conceived it would now be proper to try the effect of one dose of opium, it not being then evident to me, that this affection might not be connected with spasms of the intestines, the pulse also not being more than ninety. In about two hours after this, I again called, and found the opiate, which had been given, had somewhat alleviated the pain, but that it was now entirely confined to the right flank, at-

tended with great restlessness ; the pain was aggravated on pressure upon the part complained of, and the pulse had increased in quickness to one hundred and twenty. I therefore now judged the disease to be peritonitis, and on that ground recommended blood to be taken away from the arm to twelve ounces, which was not found to be inflamed, and to continue to act on the bowels, chiefly by the use of the sulphate of magnesia. In the course of the afternoon of this day, I had the pleasure of meeting the physician who usually attended the patient. The disease had then continued for twelve hours and upwards. He informed me, that the first attack of this disease was long and obstinate ; that he had also seen the patient, in consultation with another physician of eminence, and that they had concurred in considering the disorder to be peritonitis ; to which opinion I found no difficulty to assent. He informed me, that the attacks of dis-

ease had come on somewhat differently from this, which he had an opportunity of learning from the patient himself, with whom he had been detained some time, on account of my unavoidable absence when he arrived. About the time of our consultation, the patient was somewhat, though not materially relieved, and it was agreed, for the present, to act upon the bowels with neutral salts principally. On the following day the bowels were found to have been sufficiently acted upon, but no material change for the better was perceived. It was therefore agreed, in consultation, to apply leeches, in the evening, to the part affected, and afterwards a blister, in case no amendment should, at that time, have taken place. This was accordingly done. The next two days passed without any material amendment, but rather the contrary: indeed, a new symptom now gained attention, which had been only slightly mentioned

on the second day of the attack. This was a painful affection, extending down the outer and fore part of the thigh, which was not at all increased by pressure on the thigh itself, but considerably so when the affected flank was pressed; by which pressure, however, very little uneasiness was excited in the original station of the disease. On this day it was agreed, (as much blood could not be expected to be taken away by leeches,) that the patient should be cupped on the outer part of the thigh affected, when twelve ounces of blood were taken away, and another blister applied to the original part, as the first immediately healed. On the following day, the patient did not find himself much relieved, and was worse in the evening, when a warm fomentation was directed to the thigh and flank; but no relief was experienced from it during the night: on the other hand, the patient thought it aggravated the pain; and so

convinced was he of this, that he was happy to lay it aside. This day being the sixth of the disease, the patient passed tolerably ; but in the evening I was sent for in haste, and found him in the most torturing pain in the thigh, augmented considerably by the least motion, or by pressure on the original seat of the disease. I must here mention, that the pulse had been, from the first day, from one hundred and ten to one hundred and twenty, and more frequently the latter ; that the bowels had been kept active by the sulphate of magnesia, and that a dose of tincture of opium had, for the three preceding nights, been given, beginning with twenty-five drops, and increasing the quantity by five drops each night. In the former attacks, it had been thought to have given relief, and was therefore had recourse to in this. The tongue had been considerably coated, and continued so ; the urine was discharged in sufficient

quantity, and the skin had been frequently moist and soft, for some time together, and perspiration to some extent had occurred. Neither these, however, nor any thing that had been hitherto done, had produced any sensible diminution of the disease, in so far as it affected the constitution; and though the local pain of the part first affected was not so great, yet the pain evidently arising from this, and extending down the thigh, was now greater than had ever been experienced by the patient in this or any of the former attacks. Previous to this time, I had communicated to the physician who attended with me, the case and treatment of peritonitis above described, in order, if necessary, that we might have recourse to the same means, if we found the usual mode of proceeding marked with inefficacy, or the disease likely to prove obstinate or lasting.

At the present moment, the common course of proceeding would have sug-

gested the use of the warm bath ; but the inefficacy of the warm fomentation in this case, on the preceding night, the certainty that the act of removal into the hot bath would increase the sufferings of the patient, whose limb would not bear the least motion without a grievous augmentation of pain, dissuaded me from that measure. An augmented dose of opium would most probably have given temporary relief, which it would have been proper to have relied upon, if nothing else could be done with a prospect of more permanent advantage ; and local blood-letting, which it was agreed should be in future employed, if any, would have been too slowly come at, and, from the effects experienced from it before, too uncertain for our present occasion. Having, on the contrary, witnessed the beneficial effects of a cold application in the case just related, I was induced to give this remedy a trial in this instance ; and under these circumstances, as, should it

fail, I saw no reason in the world to expect any harm to result from its use, I therefore determined, in an indirect manner, to recommend some application of this kind. For this purpose, having first endeavoured to fix the attention of the patient, and those about him, to the advantages that might ensue from the use of opium as an external application, under the present circumstances, I took the opportunity of mixing about two drams of the tincture, which was in the room, with ten ounces of water, and recommended this to be constantly applied in linen cloths, which were frequently taken off, and kept wet with the cold lotion. In the course of less than an hour, I saw enough of alleviation of pain, to be perfectly easy about the result of the effects of the remedy. The dose of opium, in the evening, was increased to forty drops. In the morning, I found the patient's pulse to be 97, he had passed a tolerable night, and felt

satisfied that the cold application had been of advantage, and was desirous of persevering. In the evening, he communicated the same opinion to the physician who had before attended him. On the following day an eminent physician, who had been consulted by letter, and who had attended the patient on a former attack, recommended the warm bath with the use of opium, and attention to the bowels; but as a contrary proceeding had been decidedly found to be advantageous, in regard to the first remedy, it was not put in practice; in respect to the latter, they had each been before adopted, and the dose of opium had been considerably increased. The sequel of this case was very gratifying, but uninteresting as to the detail of particulars. Cold applications were continued; and the patient, in a fortnight from the beginning of this last attack, recovered from the disease and its effects, excepting such as resulted from the loss

of blood, and other evacuations, and confinement. One thing, however, which attracted attention during this latter part of the cure, and caused considerable alarm to the patient, it is important to mention ; which is, that a degree of hardness was perceived to extend to some distance about the part originally affected, such as was described to have occurred in the preceding case about the navel. It entirely vanished on applying the cold lotion more perseveringly to the part. The cause of this hardness in both cases, will be explained by extracting the following observations from Doctor Baillie's *Morbid Anatomy on Diseases of the Cavity of the Abdomen*. “ When inflammation takes place in the peritoneum, there are several appearances to be taken notice of in opening the body. The peritoneum is thicker than in its natural state, more pulpy, and less transparent ; it is crowded with a number of small vessels carrying a florid blood. When a portion

of the inflamed peritoneum is separated from the abdominal muscles, there is commonly no appearance whatever of inflammation having spread into the muscles," &c. This account, therefore, shows the cause of the hardness that was discovered in these last cases, which was a thickening of the peritoneum.

CASE 7.

I was consulted, in conjunction with a neighbouring practitioner, on the subject of a disease, which he considered to be peritonitis. The patient had, during the excess of pain, been frequently bled; blisters and fomentations had been repeatedly applied to the part; the bowels had been acted on very freely, and opening medicines were now given, with the addition of two grains of opium every night. The surgeon informed me, that no good beyond temporary alleviation had ensued, from every measure he had adopted, and that the case had been

under his care for upwards of a month. Under these circumstances, I recommended the cold lotion to the part affected, which was on the anterior part of the abdomen on the right side, as high as the navel, and occupying a considerable space downward, the patient being corpulent. The lotion had the effect of giving great ease. In the space of ten days the opiate was left off. After a fortnight, the report was, the material inconvenience experienced from the disease, is an uneasy sensation, like that of something tearing, when the patient endeavours to lie on the left side. This may be accounted for on the supposition that adhesions had taken place between the peritoneum and neighbouring parts*. After a month, these sensations were not

* The effects of such sort of mischief were discovered to be most extensive in an instance I have lately seen. These are not uncommon to a certain degree; but there were other circumstances arising

perceived. The patient can now lie down comfortably on either side, and is so

from peritoneal inflammation in this case, which renders it deserving to be recorded.

CASE 8.

The patient, at twelve years of age, was tapt, and died at fifty-two; a bricklayer by trade. For many years he had lived a laborious life, but had been in bad health latterly, for some years. He applied to the Kent Dispensary about three days before his death. The disease externally appeared to consist of two incompressible tumours. The one between the scrobiculus cordis and navel, rather to the right side: the other in the right flank. The tumours were judged to be thickenings of the peritoneum. The patient now complained of constant vomiting, and had been troubled with it to some extent for some time, and at times for years. On the cavity of the abdomen being opened by Mr. Bromley, two tumours were discovered of considerable bulk; and when laid open, each discharged a quantity of thick fluid, by no means offensive, probably three quarts in the whole. These tumours adhered on their sides to the peritoneum, and were readily separated from it to their origin. They were evidently cysts formed by the peritoneum from without. Through the whole anterior part of the peritoneum there

attached to the lotion, that she has recourse to it upon the least sensation of

were very numerous adhesions, of cellular substance, between the abdominal viscera, omentum, and peritoneum. Two tumours quite round, and each of the size of a large cricket ball, were also found lying among the smaller intestines. They adhered to the intestines slightly, and were dissected from the omentum. They were completely closed on all parts. When laid open, one contained a gelatinous matter, something like starch when dissolved and thick, with an unctuous earthy substance adhering to the sides like dirty chalk (probably phosphorated lime); the other, with the same sort of earthy matter, contained a substance in laminæ, and not very unlike tripe, but readily divided. These tumours had each exactly the same sort of coat as those on the side, excepting that a few fleshy fibres might be perceived on them externally, and in patches. They were, without doubt, formed of the peritoneal covering of the omentum, in like manner as the others were formed from the peritoneum. The thickness of the coats were alike, and about that of a half-crown piece, when the edges are a little worn down. The omentum was much wasted, and of a dark colour. The right lobe of the liver was schirrous, but the other parts sound. The stomach was found

uneasiness. The last account I had of her was, that she was quite well.

much distended with what had been lately swallowed. For the three days preceding death no vomiting had occurred. The abdominal muscles were not at all diseased, and in this respect accorded with the observation which has been made by Dr. Baillie on the subject of inflammation of the peritoneum, that it has been found very rarely to affect the adjacent muscles. This disease appears to have begun early in life: dropsy most probably followed an attack of peritonitis, and shows the extensive mischief, though in a way somewhat peculiar, that may be done, by an inflammation of this membrane. If the early ascites should by some be considered to be caused by the schirrus of the liver, the inference is plain, that the latter disease may continue for a great number of years, without affecting life. This conclusion certainly accords much with my way of thinking, in regard to such a disease of the liver in this climate; and tends to render me cautious not to disturb that which might be borne for years, with little inconvenience, but which may be rendered rapidly destructive by those means that are frequently resorted to for the cure of such a disease, and which are at best problematical in respect to the effects that may ensue.

CASE 9.

The patient, a woman of spare habit, and in delicate health, had been ill for upwards of a fortnight with great pain in the abdomen, particularly occupying the right side and epigastrium, attended with costiveness and vomiting. The means had recourse to for relief, at the commencement, were purging, by which the bowels had been well evacuated; warm fomentations very perseveringly applied, and blistering; none of which procured any permanent relief. The patient, at the time I visited her, was to the observation of every one getting much worse. At this time opium was employed in considerable doses, and purging medicines persisted in. The patient now rejected almost every thing she took, and had been in a state of sickness and vomiting for the last day, much increased on taking nourishment or medicines. Her pulse was upwards of

120, and apparently weak. The pain she suffered was now confined to the right side, extending from the ribs to the ilium, and she could not allow the part to be pressed without expressing the most violent emotion of pain. She was sitting up in bed and bending forwards, and towards the right side, as the easiest position; and when desired to lie down on her back, she appeared to be in much torture. From the present situation of the patient, it appeared to me that she laboured under peritoneal inflammation; and I accordingly, in consultation with the gentleman who attended her, gave this as my opinion. The next consideration was, in what way she was the most likely to obtain relief. General blood-letting had not been employed, because the usual health of the patient, and the habit, appeared to forbid the use of that evacuation; but cupping had been proposed, to which however she objected. Her present con-

dition, after the continuance of so violent a disease, joined to the other circumstances, appeared now more unfavorable to general blood-letting; but, as local bleeding had been proposed, I recommended the application of leeches to the part, as a substitute for cupping. The benefits I had observed from the use of cold applications in this disease, encouraged me to hope, more than any other circumstance, that the result of this case might still be favorable, and I communicated my opinion to that intent; and the plan proposed in this respect, though new to the attending surgeon, was adopted with great readiness. I left the patient, therefore, with these directions: 1st, to apply leeches to the part affected; 2dly, as soon as possible afterwards, to use perseveringly the cold lotion, and frequently to renew the application with linen cloths several times folded; 3dly, to relieve the vomiting by joining opium with cathartic extract in

pills ; 4thly, to keep the bowels open by draughts composed of infusion of senna and sulphate of magnesia, &c. I did not see the patient afterwards, but the result was communicated to me in a note from the gentleman who continued to attend her.

“ DEAR SIR,

“ I HAVE great pleasure in informing you, that your patient is much better. The cold application which you prescribed was of very great service. The tenderness and pain in the side were subdued in three or four days ; and the vomiting did not recur at all. I have continued the opening draughts twice or thrice a day, as a very open state of bowels seemed highly beneficial. I shall certainly pursue your judicious plan of treatment in the first case of peritonitis, that comes under my care.

“ I am, dear sir,

“ Your faithful and obedient servant.”

CASE 10.

This patient is a married woman, about twenty-five years of age. She had been ill for upwards of three months with pains in the hypogastric region, but more particularly on the right side and groin. This disease had been at times mitigated ; but, for the last three weeks, she had been in the most torturing pain, much increased on pressure, and now with sickness and vomiting. The patient was now wholly confined to her bed, and incapable of the least motion from excess of pain. The pulse was very quick, and feeble. The bowels had been kept open, and fomentations assiduously applied ; and various other means of relief had been employed by internal medicines. As the disease was accompanied by costiveness, I directed the same plan to be pursued as in the case immediately preceding.—*Fourth day.* The report was, that the patient was very much relieved ; and, on using the

cold application, the disease very much mitigated ; the sickness had not returned for the last two days, though it had been for the previous week both constant and oppressive.—*Tenth day.* The patient continues to amend daily.—*Fourteenth day.* She came to visit me, from some distance. She has now no complaint, excepting a very trifling uneasiness, as she expresses it, in the share bone, which is readily relieved by the cold application, which she has hitherto been inclined to persevere in night and morning.

The relapses in cases of peritonitis under the usual method of treatment, as may have been noticed, from a perusal of the preceding cases, were frequent, and probably happened because the disease was not completely subdued ; though so diminished as to occasion very little sensation of pain, and insufficient to affect the system with fever. These occurrences have, for some time, ap-

peared to me to require a more prolonged attention to diet and regimen than may be necessary in most other acute disorders; for perfect security from a return of this disorder could not be said to be attained, until after a considerable lapse of time and freedom from attack. The above cases, therefore, tend to show that there is and may be a state of peritonitis before its demonstrated appearance in some, and also after an attack in others; which, on account of the absence of several symptoms, may be called the imperfect state of the disease. This I have judged to be best able to be overcome after an attack; first, by avoiding exercise to any extent: for exercise, though it certainly tends to promote much good in the invalid, and convalescent state of many disorders, is, I am certain, disadvantageous in peritoneal inflammation, and tends much to excite or reproduce the disease. For whatever may promote the action of the

abdominal muscles to a considerable extent and duration, and agitate the contents of the abdomen, which exercise does, while there are parts of the peritoneum which are morbidly sensitive either from past or approaching disease, must tend to promote this affection. Secondly; by avoiding accumulations in the bowels, by the use of purgatives, while a vestige of the disease remains: it is, I apprehend, on account of the impossibility of escaping this circumstance so much in the cœcum, and ascending colon, as in other parts, that the hypogastrium on the right side appears more affected in the greater number of instances, than any other part of the abdominal cavity. Thirdly; by considerable attention to diet, that is to say, by a total abstinence from food or drink of a stimulating quality, and the selection of a bland diet of easy digestion, with the greatest attention to moderation and forbearance, even in respect to these. I always found

a strict and prolonged attention to these particulars to be the only grounds upon which any security could be built, in regard to the prevention of the recurrence of peritonitis. Of late I have considered these precautions, though still necessary, not to be so imperiously demanded for so prolonged a period, on account of the late deviation from the usual method of practice for the cure of this disorder : for, after the use of the cold lotion, not one relapse has occurred, which must plainly indicate that the disease is reduced to a much more subdued state by this remedy. This might be readily believed to happen, even though the other remedies should be capable of being similarly beneficial ; because the former can, upon the whole, be more steadily applied for a length of time, which is highly desirable in a pertinacious disease ; and this will likewise be less avoided, or neglected, than any other external means, because it is infinitely

the most agreeable of all such measures, and the least troublesome to be used*.

I have formerly, in conjunction with the means before recommended, endeavoured to prevent the recurrence of this disease, in some instances, by keeping an open blister near to the part affected, but I feel doubtful respecting the benefits accruing from this remedy so applied. Blisters, indeed, appear to me to be very uncertain remedies in inflammation. Without doubt they, in some instances, answer to our utmost expectations; but in others they disappoint our hopes much, and I cannot well discern what may be the cause of these uncertain effects. I have been inclined to think blisters the most efficacious in moderate

* The form of lotion which I have generally adopted, is the following, and which has been employed when no mention is made of any other. Take of camphor mixture twelve ounces, of solution of acetate of ammonia three ounces, of rectified, or of proof spirits, one ounce.

inflammations ; though, in such, not by any means certain remedies ; but in high and active inflammation, they appear to me often to do mischief, by adding to the general stimulus of the system, and thence increasing the disease more than they seem to be beneficial, by deducting from the inflammation of the part. These general observations, however, on the uncertain benefits arising from blisters in inflammation, I mean more particularly to apply to the subject of peritonitis.

The application of warm fomentations, or the warm bath, likewise seem to me to have very uncertain efficacy in peritoneal inflammation. Their recommendation certainly tends to ease the mind of the patient, by showing that something, in the agony of pain, is going on with a view to his advantage ; and it cannot be denied, that ease sometimes follows their employment ; but this may be readily accounted for on other grounds than on their intrinsic

operation, as the pain of peritonitis appears frequently in paroxysms, and will abate to a certain degree, if left to itself. I cannot say I have ever been satisfied, that warm fomentations and the bath have been of use in this disease, excepting at times, in so far as they have tended to encourage the bleeding excited by leeches, and thence rendered it more copious and effectual.

They tend equally with blisters and other external applications, by inducing a strong sensation, to withdraw the attention of the patient from the sufferings of the actual disease, and may thus be a temporary advantage to a certain extent; and such effects may last for some time, if the pain of the disorder should not happen to be very aggravated and torturing.

In common with all new remedies, the cold lotion wants the sanction of an enlarged experience, and I judge it will not fail in the trial. It is not, how-

ever, intended to convey an opinion that it ought principally to be confided on in all cases, for the cure of peritoneal inflammation; but I propose it generally as a most useful and powerful auxiliary, and as a substitute for external means of no definite efficacy; though in some instances of the disease in its mild form, it may prove a sufficient remedy. While I am writing, a case of this kind occurs.

CASE 11.

A young woman consulted me a week ago about an irksome pain on the left side, midway between the ribs and the anterior part of the ilium, which had troubled her for a considerable time. She had experienced some relief, at various times, but not permanently, on applying to a medical practitioner in her neighbourhood. I recommended the

bowels to be kept open, and cold lotion applied to the part affected. She now reports to me, that she experienced the greatest benefit from the first application of the lotion, and believes herself more free from the disease than she has ever been since it attacked her.

It may be said not to be certain that this patient laboured under peritoneal inflammation; but, whatever the disease might be, the relief experienced by the means recommended were very effectual; and that this was due principally to the lotion might be inferred, because the other part of the prescription was such as could not have failed to have been employed before. Peritoneal inflammation, however, of a chronic kind, or such as proceeds slowly and without violence, can undoubtedly not readily be distinguished from other affections of a local nature causing pain; and therefore this, and the two following cases, are given with this

incertitude, but in which advantage was certainly derived from the cold lotion*.

CASE 12.

A gentleman, some time ago, applied to me for a complaint of the stomach, attended with much indigestion, lowness of spirits, and tendency to costiveness. The skin was yellow, so as to lead per-

* Also in cases of painful affections in the abdomen, of a decidedly chronic kind, being enlargements of parts by a slow morbid process, and which is generally accompanied by inflammation to some degree, as the cause; or, in the result, by enlargement or pressure, or extension of parts beyond their healthy state, the cold lotion has given satisfactory evidences of its utility, to the extent of alleviation and temporary comfort, though it may fall short of effecting a cure: to accomplish which, all other means may frequently be equally ineffectual. But an addition to the stock of remedies of even this limited extent, must be considered as an acquisition, under a long and tedious disease.

sons to suspect that he might have a liver disease. He recovered slowly from this disorder, by attention to diet, to exercise, and to the bowels being kept in a regular state of activity. He again applied to me in the beginning of the last August, at the interval of about two years from the last attack, complaining that he had, for three weeks, had a more severe return of his disease than he had at any time before experienced. His pulse was upwards of ninety, the tongue foul, he was frequently sick to the extent of rendering it uncomfortable to him to think of food, which, when taken, increased the disease, and brought on considerable distention. He had much pain, on pressing the parts, from the scrobiculus cordis to the navel. He was very low spirited, his countenance sallow, the bowels costive, and he had a considerable sense of heat in the part affected. On any motion, action, or position, in which the abdominal muscles increased the

pressure on the part, an increase of pain was perceived, and in the act of vomiting, and in the natural evacuations. From a suspicion that inflammation of the peritoneum existed, or that the peritoneal coverings of the intestines of the subjacent parts might be in a state of inflammation, I directed the cold lotion to be assiduously applied, and the other relief proposed consisted in the use of opening medicines. After eight days, he called upon me, and stated that he was considerably relieved; that the pain, which had been before constant, was troublesome when it occurred for only a short space of time; that he had now no difficulty in taking food; that his spirits were good; that he had no pain on pressure; and that in every respect he was much amended. He said he found the cold lotion at first very uncomfortable, being under the necessity of going from home daily; but as he experienced so much relief from every renewal of the applica-

tion, he had persevered for six days. The pulse was now perfectly natural. This patient had been troubled for twelve years, with something of the same complaint. I advised him to persevere as much as possible in the plan from which he had received so much advantage ; but being under the necessity of going from home daily, and finding himself full as well as he had ever been for a considerable length of time, he considered that he had gained every thing from medicine that he could expect, and is therefore contented with his present state of health, which, I find from one of the family, who has since consulted me, has been full as good for the last three months, as it has been known to be for several years before.

CASE 13.

I was called to see a lady, who complained of considerable pain in the right side, from the ribs to the ilium, attended

with costiveness. She had perceived an uneasiness in the part affected, for several weeks previous to the present time, which was increased upon pressure, or by exercise, and by deep inspiration, though without cough. But she had suffered this, it not being to any excess, with a hope that the disease would wear off, without having recourse to medical aid, until the present period, when it had become very much aggravated. In the early part of the day, she had taken a pill with three grains of calomel, and a purging mixture of infusion of senna and neutral salts, in divided doses, by advice. Some hours having elapsed, and the medicine not acting, and in addition a vomiting having come on, which tended to increase the uneasiness, and to excite alarm, I was sent for. The pulse was ninety, and the tongue not greatly coated. I prescribed saline draughts, with some pills of pil. ex aloë cum myrrh; and these not having acted

to any extent in the evening, I directed five grains of extr. colocynth comp. to be given every two hours, until motions were procured, and the saline draughts to be persisted in. Before the morning, several copious evacuations had taken place, and the patient felt much relieved; but still the pain in the side continued to be considerable, and to be increased on pressure, and by motion or respiration. The cold lotion was therefore directed to the part affected. The second day was passed without motions; in consequence of which, the pills were again employed with effect, and on the third day aperient draughts were prescribed, with neutral salts, which had the effect of keeping the bowels sufficiently active. The patient experienced much relief of the pain in the side, and considerable immediate ease from the use of the lotion, which she assiduously applied for two days after it had been prescribed, and with intermissions after-

wards. She was, in the space of a week, in a convalescent state.*

It may be proper now to advert particularly to the subject of blood-letting; of which nothing I have advanced, either in recommendation of the cold lotion, nor what may be conveyed by the result of several of the cases, ought to prevent the use as a most important remedy, for the treatment of peritonitis, under some circumstances. In the commencement of the attacks of this disease, attended by violent symptoms in a plethoric habit, apprehensions may be entertained of considerable effusions of coagulable lymph and serum taking place, which frequently cause the greatest danger; and the fatal cases of this disorder which have happened after a short illness, and have occurred under my observation, have been such as have not had the benefit of blood-letting, or when it has been too tardily had recourse to. Some

* I have prescribed the lotion, in several such cases as this, with equally happy results.

of the above cases, indeed, have shown that blood-letting is not always competent to the actual cure of the disorder ; but it appears to me more capable than any other remedy of mitigating that state of disease that conducts to rapidly fatal events ; and that, in its beneficial consequences to a certain extent, it is more immediately efficacious than any other remedy, and therefore most desirable under urgent circumstances of the disease. On these accounts, therefore, I must inculcate the necessity of having recourse to this remedy in the commencement of such attacks, because the evils arising from even an improvident use of blood-letting, in any such case, are in no respect commensurate to the perils ensuing from the neglect of it in some ; the former of which may be overcome in general, and consist in a degree of debility that might have been avoided, and which may render the recovery more tardy ; but the latter will encourage consequences, attended with the inevi-

table loss of life, or connected with much and serious danger.

The period which ushers in the most formidable symptoms, and which frequently end in death, appears to be confined mostly to the three first days of the violence of attack, and most alarming symptoms are also manifested not unfrequently within twelve hours of such attack. The circumstance that takes place, connected with this perilous state, is the sudden and copious effusion of coagulable lymph, which, when such event happens in the abdomen, but more particularly in the chest, frequently causes an irreparable anxiety and affection of the whole frame, with different degrees of apparent circulation; sometimes with a throbbing pulsation at the wrist, but at other times accompanied by a most languid state of pulse: mostly, however, with evidences that the general circulation has suffered a great injury, from the livid appearance of the countenance and ex-

tremities, the disturbance of the mental faculties, profuse sweating, &c.

When peritonitis passes over this period without any bad consequences ensuing, or threatening symptoms, and becomes a protracted disease, whatever may be the sensations of pain, it may be inferred that the inflammation has not been actually so violent as the symptoms would appear to indicate, or that the greatness of the inflammation has been much mitigated by the proper remedies; and by whatever means this protracted disease is brought about, it seldom happens that it exacerbates suddenly to a state to cause immediate danger to life. Effusions do certainly, in this condition of the disease, take place into the abdomen, and because they are not copious and suddenly thrown off, but gradually effected, they are not attended with much immediate danger; but the material mischief that ensues, which extends frequently to a distant period, even when the original

disease has actually vanished, is the disorganization of the parts upon which the coagulable lymph has fallen. It happens, likewise, that peritoneal inflammations, like inflammations of the eyes, exist, and are troublesome, for a considerable length of time, without being accompanied by symptoms affecting the general frame; but effecting mischief by slow degrees, by causing agglutinations of parts, &c. and though such a state of inflammation may never arise in its symptoms to the character of an acute disease, there is no certainty that it will always continue to act with so little violence.

These different conditions of inflammation may be supposed to cause some variations in the effects of remedies for the cure of peritonitis, and that remedy which may have proved to be of the highest usefulness in one stage of the disease, or state of inflammation, may not possess equal advantages, or be of little efficacy in overcoming the morbid state of the parts in another condition of

the disorder. The period and circumstances under which blood-letting has been found to be of eminent advantage, has been just adverted to ; but when that period has passed by, and the disease takes the form of a protracted disorder, a repetition of blood-letting appears to possess little comparative advantage, or to be unavailing for its cure. The cold lotion, however, has been shown to be adequate to the correction and subjugation of this state of the disease, and for which there was before no precise remedy. Before its use, the disorder was allowed to wear off by keeping the patient as much as possible out of the way of irritation, and steadily evacuating the bowels. Under such circumstances as these, opium has been resorted to, and been thought to be advantageous ; or, at least, it has procured a species of relief, or truce from protracted pain, that nothing else was found so capable of effecting.—It has

been seen under what circumstances this remedy has generally been employed by me ; it has not only been prescribed to curb a disposition to vomit, but occasionally to moderate symptoms of pain and spasm. In case 6, this remedy was recommended by two physicians of respectability, one in the first rank of practice, under the avowed sentiment that the disease was peritonitis, for the purpose of mitigating the intolerance of pain, which it had succeeded in doing, in a previous attack of the same disease. These cases prove that there is a condition of peritonitis that is not disadvantaged by the use of opium. But I am inclined to conclude that opium can only be advantageous as an incidental medicine, by relieving sickness, and mitigating pain ; but that it ought not to be considered in the view of an actual remedy for the disease in any of its stages. There may be some, however, who will object to it, on the ground of its being capable of

encouraging inflammation, but which appears not to be supported by any of the above facts. This opinion of its effects rests upon a supposed similarity of action between opium and fermented liquors and spirits; but this part of the objection may be considered not to have obtained sufficient support to become a reasonable impediment to the use of opium in peritoneal inflammation, against the evidence of facts. The cold lotion seems well adapted to a range of beneficial action through every condition of peritonitis, and it will be found to produce another eminent advantage. In its co-operation with blood-letting, it will render this remedy comparatively less necessary to be repeated; and, by saving an expenditure of blood, the general strength will be less broken in upon. It will also curtail every stage towards recovery in a considerable and material degree.

These are the inferences I should draw from the use of this simple remedy in a state of true peritonitis. I do not warrant the same efficacy and celerity in cases of a mixed or uncertain nature. It may happen, that parts much out of the reach of an external application may put on many of the symptoms of peritonitis, such as inflammation of the mesentery, in which an external application cannot be supposed to produce so rapid an effect as in a disease of the thin parietes of the abdomen; but here I entertain no doubt that the lotion will be beneficial, though by slower degrees. These latter remarks I have thought proper to make, that it may not be expected in every circumstance of a disease, which may appear to approach to peritonitis, that equally rapid relief ought to be effected by the use of the lotion; and on account of such impression, such a degree of disappointment, on any occasion, thus ensue, as may tend to prevent its employment in

cases, in which it is most distinguishedly advantageous.

The transition from the advantageous use of cold in peritonitis, to a trial of its effects in puerperal fever, is so natural and easy, and the analogy between the diseases are so close, that one cannot help surmising, that the same application may, with the appearance of much probability, be useful in both. But the mischief is almost always so rapidly effected in this latter disease, that the hopes of doing good in it, cannot be expected from the most advantageous remedies, unless they happen to be very early resorted to. I have never had the happiness to discover any thing in the shape of a remedy for this cruel disorder, excepting copious blood-letting, but which is not often resorted to. The puerperal state is conceived frequently to be such as not to allow any other than what are considered to be gentle means, to be adopted. Hence this remedy meets with

little encouragement so early after parturition. But if it be considered that no condition of the human body is so well fitted for losing blood as the puerpual state is, that Providence has so ordained that the most copious artificial evacuation of blood, by way of remedy, is nothing to the loss which is sustained by females, under such circumstances, and frequently borne without risk, the mind may be better reconciled to the propriety of the use of blood-letting in puerpual fever. Besides, it most frequently happens that the usual course, which nature takes to right the female system after delivery, and which may be considered to be a lowering process, is in this fever frequently much diminished, and therefore the patient may be supposed to be more capable of allowing evacuations by artificial means to be used, without the hazard of inducing too much weakness. If, therefore, blood-letting in this disease shall happen to come into

more general use ; and blisters and fomentations, which have ever appeared to me to be without benefit, be laid aside, and cold applications be called into aid, which have been always had recourse to in great puerperal hæmorrhage, with other obvious means to lower the fever, I entertain a hope that we may be more successful in the cure of this disease than we have hitherto been. At least, such has been the want of success in its treatment, that any hint is allowable, which carries with it the appearance of some promise.

The treatment of active inflammation in the thoracic and abdominal cavities have been hitherto conducted upon nearly the same general plan, with the exception, that as there is a decided effort of nature to relieve the former, which is wanting in peritoneal inflammation, this has necessarily claimed a share of attention in the treatment of inflammations of the breast.

For the relief of peritonitis, there appears to be no other natural and marked course than the gradual subsidence of inflammation, unless the throwing out of coagulable lymph and serum may be considered as such ; but which appears to be so fraught with immediate danger, or to be very frequently followed by consequences so unfavourable, as to be avoided, if possible, on all occasions ; and of course not encouraged, if we had the means so to do within our power. But in inflammation of the contents of the thorax, we observe much advantage to ensue for the relief of the disease, by that secretion in the bronchia being promoted, which we call expectoration, whether the substance of the lungs be affected, or its investing membrane, or the pleura costalis, &c. This discharge is, therefore, with good reason considered as a material auxiliary, and proper to be encouraged, as a powerful means of obtaining a successful termination of the disease. It

has been generally conceived, hitherto, that this expectoration might be considerably checked by the application of cold in any way: this has, therefore, been studiously avoided under such disease; but as no such effort of nature, nor any thing similar, which could be so interrupted, occurs in inflammation of the peritoneum, the same reason for withholding cold, as a remedy in this affection, does not exist.

The result of the above cases decidedly warrant this last conclusion; but the statement above made is adverse to the use of cold in inflammations of the thorax, and which is also discountenanced in every shape in medical writings, excepting in one instance, in the cure of catarrh, in which the inspiration of cold air is recommended. This has been pointed out as a remedy for that disease by the late Doctor John Browne; and any one who has tried it, must be satisfied that it tends much to relieve the disorder.

It is not, however, frequently resorted to, because patients, in general, will not use it for a sufficient time to produce permanent advantage; and by coming from the inhalation of cool air to breathe the atmosphere of a hot room, they would tend rather to increase than to cure the disease, as the alternations of heat and cold in catarrh have been found to be highly disadvantageous.

On these accounts, notwithstanding the fact above stated, the cure of catarrh is conducted upon an opposite principle, by diligently avoiding cool air. Experience has hitherto, therefore, not supplied us with facts to countenance much the probability that cold in any way applied could be successful in inflammations of the thorax. Its benefits, however, in some cases connected with pectoral inflammation, and in one wholly of the latter, have proved that the external use of cold in a fluid form, in inflammations of the chest, may be a successful remedy,

and by no means attended with the inconveniences that have been supposed to be likely to arise from it.

CASE 14.

A young man, about the age of twenty, consulted me, in November, 1811, about a cough he had laboured under for some months: with this was connected a pain in the right side, which he described to be just below the ribs, or, on pointing to the part, he introduced his finger to the termination of the last false rib: there was expectoration, which, however, I never saw, as he came to my house at Greenwich: the pulse was about 100, he had night perspirations, and appeared to be wasted. He had consulted a physician in London several times, who directed steel and myrrh draughts, with some opening medicines, which had been taken without any benefit. These medicines

he had left off for some little time, and had been bled and blistered, and placed upon the cooling plan of cure, under the direction of a surgeon in this neighbourhood. During the winter he was wholly under my care, and was directed occasionally to lose blood, both by the arm and by the use of leeches; he had blisters applied to the local disease, one of which was kept open for some time; he was directed such medicines as appeared calculated to relieve the cough, and was particularly recommended to live upon bland unirritating food, to take milk, avoid animal food in the solid form, nurse himself as much as possible, and to be cautious in exposing himself much to the effects of a cold atmosphere. Some months passed over, in which the patient grew thinner, but not to the extent that might have been apprehended, considering the menace of consumption which his symptoms appeared to indicate. In the month of May he called on

me to ask respecting the advantage of a change of air, and going to the sea-coast, which I did not discourage him from doing; he likewise wished to know my sentiments on the propriety of sea-bathing, which I endeavoured to dissuade him from attempting. At this time, he said his cough was better, the expectoration not so copious, but the pain continued fixed in his side, and unabated. The pulse were then upwards of ninety. Six weeks after this, I again saw him. He said he had been much benefited by his journey to the sea-side, that he now had no complaint, that he had gone into the sea by the advice of some one he met there, which I was not surprised to hear, because he was much inclined to that measure before he set out for the sea-coast. He said that the pain in the side had entirely left him, and that he found relief in regard to this complaint, so long as it remained, from every time he bathed. The pulse

was now natural, and no pectoral symptom appeared to remain.

This seems, at first view, to be a case of consumption, much benefited by cold sea-bathing. But though there were certain symptoms, which led, from the beginning of the disease, to a suspicion that consumption might be dreaded, it should appear that this had not taken place. In a habit prone to the disorder, it is highly probable that the patient would have fallen into that fatal disease, under the symptoms described; and, as an experienced physician observed, would have coughed himself into a consumption. Every sort of indisposition, in those much prone to consumption, appears occasionally to be the beginning of this disease: thus we find consumptions following fevers, and disorders that seem to be little allied to it, which, by bringing on some morbid action in the frame, tend to excite that to which the constitution is most

prone. Among these, however, those that occasion prolonged cough, which, by a constant harass of the body, tend to wear down the constitution, are the most likely to cause a permanent affection in the lungs, ending in consumption; and of this kind none are more likely to induce this, than peritoneal inflammation, when it tends so to affect these organs, because it has frequently been observed to remain a considerable time unsubdued. The result of the above case appeared to me to point out the probability, that the affection of the lungs might be the effect of a cause not existing in the thorax, and that the pain of the side was occasioned by an inflammation of the peritoneum, and probably extending to some part of the diaphragm. Hence the reason of this disease having been so much, and so immediately, benefited by cold bathing, seemed to me evident: and there is, from the situation

of the part complained of, full as much reason to suppose that the cause of the pain was in the abdominal cavity, as in the thorax. It does not become necessary, to establish this point, that the same consequences shall always follow such a disease of the peritoneum, namely, pectoral symptoms, because the cases before described show considerable uncertainty in the sympathies or affections of distant parts, which may be excited by peritonitis. In the first case, this affection brought on giddiness of the head: in the sixth it caused considerable pain down the thigh: and to show the variable nature of these sympathies, it may be remarked, that this was the third attack of the disease, in this subject, in precisely the same part; yet in neither of the former attacks did any painful feeling of this description arise. On this mode of reasoning, the practice recommended in the two following cases, was instituted.

CASE 15.

A married woman, about thirty-five years of age, had been ill for three weeks and upwards with cough and pain in the side, for which she had been bled several times, copiously, repeatedly blistered, and the bowels kept effectually open, besides such medicines being prescribed as might tend to relieve fever and mitigate the cough. The pain, however, still continued, and the cough had suffered no material abatement. When I saw the patient, she appeared much reduced, her pulse was very quick, and she had night perspirations, though to no great extent. These circumstances caused apprehensions in the minds of the friends, and of the medical attendant, lest the patient should sink into consumption. The pain complained of, I found to be principally below the ribs on the right side, and much increased upon coughing, or by making a pressure upon the flank

a little anteriorly. The expectoration through the night had been about three ounces, and consisted of thick mucus, and principally in a globular form. Under these circumstances, I recommended a trial of the cold lotion to the part affected, a draught with lac amygdalæ, and eight grains of nitre, to be taken every four hours, and a pill of four grains of extract of poppy with every alternate draught, and the bowels to be kept open. The patient was afraid of the use of the lotion, but persevered steadily one whole day, which sufficed to conquer the pain in the side; and she was reported to me, about a week afterwards, to have very little remains of any of her complaints; which benefit was ascribed, by the attending surgeon, chiefly to the use of the lotion. I found the party was very soon afterwards restored to perfect health.

CASE 16.

A child, upwards of four years old, had about eight months before gone through the measles, after which she had never been in complete health. For two months previous to the present period, a pain and hardness had been perceived in the fore part of the abdomen. Three days before I saw her, she had been taken very ill with considerable increase of pain in the belly; and only the day before my visit, a cough had come on, which was now incessant, and of which no symptom had been perceived previously. The cough was repressed in violence by efforts to escape the pain in the abdomen, which the child always pointed to as the seat of its uneasiness; and when the body was pressed, the patient expressed sensibly an increase of pain. There could readily be perceived a limited hardness and fulness from the scrobiculus corac. to the midway between the navel

and pubes. The pulse was exceedingly quick, and not capable of being counted; the countenance livid, with a very hurried respiration. The bowels had been evacuated three times the day before, and once on that day. There appeared to be so many unfavourable circumstances in this case, that I was willing to diminish the sum of evils in the best way I could; and I judged I had a probability of appeasing, or of conquering, more quickly the affection of the abdomen, such as it appeared to me, than any other symptom. For this purpose, the cold lotion was directed, some saline medicines prescribed, and an opening powder ordered to be given. As this last had not the desired effect, a clyster and other purgative medicines were administered on the following day, and succeeded by proper evacuations. In the evening the child was reported to be better, the pain in the body diminished, and the cough not so incessant. On the third day from

the commencement of my attendance, I found the symptoms considerably mitigated, and on this day a blister was applied to the chest. On the fourth the pain in the belly was much diminished, the cough continued with considerable intervals, but not so teasing; the pulse on this and the preceding day was 120. The application of the cold lotion was continued, with attention to the bowels and mucilaginous and saline medicines. In a few days from this time all remains of the pain and hardness in the abdomen had vanished, but the cough continued, though much abated. About a fortnight afterwards I saw the child, who had then a considerable cough and expectoration, but without any abdominal affection. The present pectoral symptoms were much worse than they had been, a week ago, when the parents judged the child to have been getting well. I thought a removal to a drier soil than they at present resided in, might be advantage-

ous, which I recommended to the friends, and which was adopted, with the use of some medicines that might sooth the cough, and the patient recovered perfectly.

CASE 17.

At the time of attending the above patient, I visited a child of five years old, with affections of the chest and abdomen, but which, from the account of the parents, had attacked the patient much at the same time, or, if any thing, the affection of the abdomen was observed to be posterior to the cough. The bowels had been well evacuated, and a blister applied to the chest, and some saline medicines with antimonial wine had been administered. Nevertheless, the child seemed to be daily getting worse. The breathing was much hurried, and pulse exceedingly quick, and not capable of being counted. When the child coughed, he complained of pain in the abdomen,

which was also excited upon pressure between the stomach and navel, and the part appeared to be very hot. The countenance was swollen and anxious. The cold lotion was directed to the abdomen, which appeared to give relief every time it was applied. The pain of the abdomen wore off in about four days, but the cough continued, though not so violent; and the pulse, which could not before be counted, was discovered, at this time, to be less than 120. The treatment, in other respects, did not differ from the preceding case, excepting that no blister was used jointly with the lotion, because one had been before employed. The patient very shortly recovered considerably, but had a renewed attack of pectoral symptoms, as I understood, from some improvident conduct of the mother, but afterwards recovered completely.

Each of these cases were considered by the surgeons who attended them to

be highly dangerous; and, indeed, I can form in my mind no probable means of proceeding that could have been attended with better success than the mode adopted, from the apparent relief experienced by the patients. Of the first case I certainly had no hopes; nor should I have been much more sanguine respecting the event of the second, had the other not preceded it a few days. It may be here remarked, that the symptoms of uneasiness in the abdomen were much subdued by the use of the lotion, and the cough to a certain extent mitigated; the irritations of the system, and inflammation, might hence be inferred to be much diminished. It may be well imagined, that the diseases of the different cavities might tend materially to exacerbate each other. The cough must evidently aggravate the affection of the abdomen, as the affected part must, on every exertion in coughing, be put into motion, and suffer a state of pressure: to

avoid which, in the first of these cases, the cough was manifestly as much stifled as possible. On the other hand, in so far as this adds to the irritation of the system, it must tend to increase the pectoral affection. The abatement, therefore, of one of these diseases, must materially contribute to benefit the other, though perhaps not in equal and similar proportions; and I judge the relief of the peritoneal affection, which was attempted in preference, because it appeared to me to be more under the immediate control of art, may be considered to have contributed in the most material degree to the preservation of the lives of each of these patients.

Having prescribed the cold lotion in some cases of palpitation of the heart with apparent advantage, in one of which blood-letting had been thought advisable to a considerable extent; these, and the above recited cases, induced me to propose the cold lotion under circumstances

of considerable interest, as stated in the following case.

CASE 18.

The patient, whose age is about thirty-five, and a healthy woman hitherto, and rather inclined to be stout, had been ill for some days, but had not applied for medical advice until the evening previous to my first visit. I found her face flushed, swollen, and livid; she had difficulty of breathing, cough, and great palpitation of the heart; the pulse was moderately full, 90 and sharp; the tongue coated, with heat on the skin: she could not articulate except in a low whisper; the expectoration was a sort of thin phlegm, with streaks of blood. The patient had been bled to ten ounces, a blister applied to the chest, and the bowels had been sufficiently opened. She was reported to be much better than she had been a few hours before. An expectorant

medicine was now ordered. On my visit on the following day, I found the patient had passed a bad night, her breathing was more difficult, the face very much flushed, the power of utterance difficult, the expectoration diminished, the pulse sharp and full; the heart beating exceedingly strong and sharp, so much so as to be felt on the greater part of the left side, and in the scrobiculus cordis, distinctly. The urinary discharge was sufficiently copious. On this day near sixteen ounces of blood were taken away, which was very buffy; a draught with lac amygdalæ and squills with nitre, was directed to be taken every four hours, an opening powder to be given in the morning, and the cold lotion to be assiduously applied to the region of the heart.—*Third day.* Somewhat better, the palpitation and difficulty of breathing not so urgent, the pulse sharp, the expectoration more copious than yesterday; in the evening the symptoms became worse, when ten

ounces of blood were taken away, the draughts and lotion to be continued.—*Fourth day.* The voice now distinct and clear, every symptom much mitigated; a purging powder was taken this morning, and eight ounces of blood taken away in the evening, on an accession of fever, and some increase of symptoms.—*Fifth day.* Much amended. *Seventh day.* Much amended, the countenance puts on a healthy appearance, the sharpness and quickness of pulse much abated, the palpitation greatly diminished, the expectoration less, but sufficiently copious, the respiration easy, and the cough by no means troublesome. The cold lotion was to this time a favourite remedy, and had been assiduously applied until yesterday, but had not lately been so frequently renewed, as the patient felt it now for a long time cold, whereas before she frequently asked for it, and considered it to have relieved the palpitation and oppression of the breast

greatly, and was much gratified by its application. My attendance here ceased, but the patient recovered uninterruptedly into perfect health. This patient I attended with Mr. Butler, of Woolwich, as well as case 7th.

The result of the above cases and observations prove that much advantage may be derived from a cold application, under circumstances in which such a remedy has not been hitherto thought of, or, if so, only transiently noticed. Hitherto the powers of cold, through the medium of a fluid, permanently applied, have been generally employed for the cure of external diseases, with the exceptions of affections of the head, of hernia, and of internal hæmorrhage; and its employment in these instances have more resulted from the opinion that the disorders were actually local, and independent of any general affection of the system. In diseases attended with fever, the powers of cold have been employed in a very transient manner; and have, in this way,

been advantageous in many such disorders; but the permanent use of cold and moisture, and this assisting in producing cold to a certain extent by evaporation, has never been ranked among the number of remedies for the cure of internal diseases accompanied by fever, and has least of all been thought of as a remedy for affections of the chest. There have been discouragements arising from theory, against the use of such a remedy, added to the apparent certainty that such an application would bring on all those diseases which are supposed to be derived from cold applied in the ordinary intercourse and transactions of life. The remedy, however, when applied, has in no instance been noticed to produce inconveniences of this sort. I have been particular in my inquiries on that head, and find the patient, the subject of case 7th, to be liable to asthma, which is a disease that might be supposed to be as readily excited by cold as any other affection of

the thorax ; but she did not experience the least inconvenience of this sort from the use of the lotion. The class of patients also whom we have been most cautious to guard from cold, have been such as suffer under pectoral affections ; but, from the experience which has been detailed, the mode of applying cold above employed, has not had the effect of inducing any inconvenience in that way, but the contrary ; and what would be ranked as an insuperable objection to its employment, the fear of its stopping expectoration, appears to be void of foundation, or at least ought to be more limited than has been suspected. The last case is an answer to this, for before the lotion was applied the expectoration appeared to be disadvantageously diminished ; but, after the application of this remedy, it was increased, and afterwards continued in a proper state of decrease with the symptoms, but showed not the least sign of being hurtfully checked.

Another great objection to the use of cold in such diseases, is the fear of its having a hurtful influence on the secretion of the skin, but which has not occurred by the present practice: on the contrary, the cold lotion has appeared much to promote moisture on the surface, and to discourage that dry heat which is frequent in inflammatory diseases. This effect of the lotion I particularly remarked in case the 6th, the second time I recommended the practice. I have, however, observed occasionally, after having been employed for some time by a patient, and been thought to have caused much relief, that the lotion has become less a favourite, and been complained of, as in case the 18th, in which, after having been assiduously applied for four days, and more frequently renewed on account of the importunity of the patient, who thought she experienced much relief from its use, it was afterwards complained of, as

inducing a degree of uncomfortable cold. It ought here to be observed, that during this period the patient was getting better, and the temperature of the part, and of the whole body, had arrived at nearly their natural and healthy standard, when the effects of cold induced the usual sensations, and a local application of it to a part not commonly subjected to cold in health, became no longer pleasing. The inference, therefore, that may be drawn from such instances, is, that local cold will be advantageous, and not unpleasant, when applied for the purpose of abating internal inflammation, while the part to which it is immediately applied is above the healthy temperature, and the application does not diminish the heat of the surface of the body much below the natural and healthy warmth; and it should seem too, that while it has not the effect of lowering the temperature to a greater extent than this, that it does not render the parties who use it liable

to take cold, or cause an increase of pulmonary affection. These grounds we may venture on also to guide us as to the proper kind of cold to be employed. It might be considered that a fluid of a much lower temperature, or occasioning much more local cold, might be more advantageous in quickly subduing disease, than the one we have selected; but it ought also to enter into consideration, whether this higher degree of cold might not be attended with disadvantages not connected with the lotion hitherto used; and, by lowering the temperature of the surface considerably, induce more evil than the partial good it might cause as a local application. On these accounts, I have confined myself principally to the lotion in the form above noticed, because it has hitherto caused none of those inconveniences which would commonly be dreaded, and possesses sufficient efficacy to merit confidence. This sort of tem-

perature then, of a fluid, appears to be well adapted for our purposes ; and, if a medicated one is adopted, there can be few more simple and pleasant than the lotion which has been generally employed.

Having proceeded thus far in my experience respecting the effects of the cold lotion in certain pulmonic affections, it may admit of some excuse if I venture to advance some opinions on a practice, which appears to deviate very considerably from the accustomed routine of treatment in pulmonary consumption. I have hitherto shown, that a cold fluid, permanently applied, under certain diseases, either to the abdomen, or the chest, has been attended with advantage, and has not induced the evils which, upon a slight view of the subject, might be expected, either of increasing the cough and pectoral symptoms, or of unfavourably decreasing the expectoration. It may, therefore, be

imagined, that I should not be disinclined to believe, that a cold application to the chest, in consumptive cases, might, under some circumstances, be attended with advantage.* The papers printed below, were

* *Extract from a Letter sent to Lord ——— in November, 1811.*

“ In treating breast complaints, it has long been with me a maxim, to overlook comparatively the idea of inflammation, except in the very first stage; and to aim *gradually, prudently, and steadily*, at regaining a *cool, braced, and properly seasoned* state of the constitution, as my first object.

“ Many reasons, which I need not now specify, incline me to suppose, that what in the progress of breast complaints is called an *inflammatory state* of the lungs, is not really so (I mean not a *real active* inflammation); and, at any rate, I know, from a good deal of experience, that it yields more readily to a different mode of treatment, than that commonly in use. I have likewise found, that the kind of practice which aims at overcoming this supposed inflammation, by lowering the strength in various ways, almost never fails to superinduce, in the same proportion, the most painful irritability of nerve; which, at length,

placed in my hands by Doctor Saunders, as relevant to the subject of the present tract. They are communications from

counteracts the very end which is in view, by exposing the patient to a perpetual fever, from the most trifling causes. And I may add, that by relaxing what is already too much relaxed, making the constitution naturally very tender, and susceptible of cold; it puts it beyond our power, with all the precaution we can use, in a variable climate like ours, to prevent the frequent, and therefore dangerous, recurrence of some new irritation in the breast or throat."

" Bolton Manse, Feb. 14, 1812.

" After giving my reasons for deviating from the common practice, in consumptive complaints, and adopting another, as they are stated in the former paper, I observed that, on considering Lady ——'s case, I thought it would be proper, as well as satisfactory, to make some alteration in the treatment of it, agreeably to these reasons.

" I proposed, accordingly, that she should make a trial of the following things:—Diet that is nourishing, without being stimulating, as (besides milk and vegetables) an egg, a bit of fresh animal food, beef tea, broths, and particularly veal broth,

Doctor Andrew Stewart, a respectable clergyman in Scotland, who has applied himself to the cure of consumption, and has acquired such a reputation in his

jellies, and arrow root; and for drink, water, either pure, with sulphuric acid, or with a *tinge* of port wine, or occasionally spruce beer, ginger beer, or common small beer. As much exercise as possible, without fatigue, on a spring deal, within doors, and in a carriage in the open air. A regular system of spunging the body with water and vinegar (at first tepid, and afterwards cooled down to the natural temperature) at least once a day, and following it always with a great deal of rubbing; and a blister issue on the breast.

“As to medicine, I recommended merely, as far as I can recollect, a cup full of cold infusion of bark, with some drops of the sulphuric acid twice a day; and, I think generally, some preparation of steel with a bitter.

“I am also partial to the use of the Plummer’s pill, in such cases as Lady ——’s, but it was not mentioned in my letter; and, on coming to London, I found it inadmissible, from the state of her bowels.

(Signed) “ANDREW STEWART.”

(Copy.)

native country on this subject, as to have attracted the notice of a noble family residing in London, one of whom laboured under this disease. The statements alluded to, were the consequences of an application respecting this patient, which are made with great candour and openness. Doctor Stewart appears to keep steadily in view two things; 1st, to prevent or overcome the susceptibility of consumptive patients to cold; 2dly, to support the habit. For the purposes of doing which, however, he appears to me to effect other objects of some importance. For the first intention, he employs cold vinegar and water to the chest daily, and recommends the thorax to be well rubbed, which must tend also to cool the breast, by exposing it without the usual covering. But, in recommending this process, he appears aware that objections may arise, on account of the state of actual or apparent inflammation in the chest, which, he says, he

overlooks, excepting in the first stage, considering it of comparatively little importance to other circumstances, or because it is not actually an active inflammation. This practice may, however, be recommended upon a more precise basis, as properly adapted for the cure of that inflammation of the chest, which arises in consumption; and, if capable of subduing it, as much the properest means for that purpose. It must have been always lamented by medical men, in the treatment of consumption, that they have been obliged to recommend such remedies for the cure of symptoms, as must evidently place the patient, in regard to habit, under much worse circumstances. Thus, to abate the inflammation of the chest, blood-letting has been had recourse to, which has tended to increase the debility of the habit, and to encourage emaciation; two symptoms most materially indicating a declining state of health. On

the same ground, every kind of food has been prohibited, which was likely to impart force or strength to the constitution. So that, in fact, the actual remedies for some symptoms are, to a certain degree, the actual causes of reducing the patient to a state of more and more immediate peril. A reason that Doctor Stewart gives for the use of cold to the surface, is to guard against, and to oppose, that melancholy susceptibility, which he thinks is too often encouraged by tender treatment, and by an improper encouragement of warmth on the surface. That this may sometimes happen, I am perfectly convinced, as the following case will, in some measure, show.

CASE 19.

A respectable tradesman in this neighbourhood consulted me on the subject of a cough, which had troubled him for some time, and by which he was

becoming weaker and emaciated. After an attendance of about ten days, the symptoms had grown worse. The patient was now so weak, that he could with difficulty leave his bed; he had a very harassing cough, with an expectoration of an uncertain character, hectic fever, and profuse perspirations, with a pulse of one hundred and twenty. About this time, in one of my visits, the conversation turned on the state of the patient's health some years before, which was represented to be delicate, and that he was subject to rheumatic affections in various parts of his body, on exposure to cold. On this account, he wore great quantities of flannel, which led me to inquire into the state of his present clothing. I found he was completely invested in flannels of various and the warmest kinds, and that he constantly wore several such garments. As it appeared to me that this sort of clothing must be very prejudicial to him in his

present state, and particularly by encouraging profuse perspirations, I recommended all but one of these garments to be dismissed, and, as soon as possible, to substitute for the remaining one a coarse callico waistcoat. After this change had been adopted, the patient very rapidly and completely recovered, which was plainly due to the diminished heat on the surface.

If, then, the purposes above mentioned can be accomplished to any extent by the use of the cold application to the chest, the other part of Doctor Stewart's plan, in regard to diet, must become unexceptionable. Every medical man must acknowledge, that those means which would be capable of supporting the strength, without increasing the symptoms in the chest and fever, must be highly desirable; and I have good reason to believe, that some deviation from the present strict plan of diet usually recommended in consumption,

may occasionally be attended with considerable advantage ; of which the following case is an instance.

CASE 20.

I visited the wife of a naval officer, who had returned with her husband from a foreign station somewhat more than a fortnight previous to my seeing her. She was six months gone with child. I found her in bed, much emaciated, with cough, and expectoration of mucus mixed with purulent matter ; the pulse was 120 ; the patient had night sweats, and had suffered considerably from diarrhœa ; the appetite was much impaired. The history I obtained of the case was, that the patient had, during the voyage, devoted herself to nursing her little boy, who had been exceedingly ill ; and, in consequence of some retardation in the voyage, or other causes, she had been under the necessity of living on ship provisions ; and

since her coming on shore she had in no respect recovered, but the contrary. She was ordered a draught with infusion of roses, compound powder of gum tragacanth, with either extract or syrup of poppy; and having by her some chalk mixture with opium, she was directed to take a dose of this, as occasion required. On my second visit, after a due consideration of all the circumstances, and a second investigation of particulars, I recommended to the patient to use a more strengthening diet than she had done; to take chicken, or a little beef or mutton of tender quality; to try the effects of small quantities of good porter, which she wished for, and to take a small quantity of red wine in sago, and, occasionally, port wine and water. The cough was mitigated by opium and extract of poppy, and the strength supported by mineral acids, infusion of quassia, &c. In three weeks, by this plan of diet and medicine, the

patient was so amended, that there was every prospect of recovery, and the health was in less than six weeks greatly restored. The patient went through the latter part of her pregnancy and confinement perfectly well, and I saw her some months after the latter in the most complete health. In this case, a deviation from the usual diet was instituted, under the conviction that little other chance existed of recovery, should this fail; and as the disease had come on under unfavourable circumstances of anxiety of mind, the use of unusual and improper food, and because the patient was far advanced in pregnancy, the whole appeared to me to warrant the plan recommended.

I am, therefore, perfectly certain, that there are cases of consumption, which will stand a better chance of recovery on Doctor Stewart's plan, than through the usual and common routine of practice; and that the treatment rests

upon principles full as evident and right, (if we keep in view the recent experience respecting the effects of a cold fluid for the cure of internal inflammation) as those upon which the treatment of consumption in the ordinary way depend. The use of tonic medicines, under circumstances of abated inflammatory affection, which is supposed to have been effected by the topical means alluded to, cannot be objectionable : but I perceive no propriety in having recourse to preparations of mercury in any stage of this disease. While, however, I should wish this medicine to be wholly deducted from the plan, I should recommend another, which might much assist in alleviating the inflammation in the chest, which is that of opium. I have found this medicine of considerable advantage in diminishing or preventing an increase of the inflammatory symptoms in the chest, by repressing the tendency to harassing cough, which cannot fail, by the agitation

it gives to the already sensible parts, to cause an increase of inflammatory action. To these means must be added such medicines as will keep the bowels properly active.

Lastly ; there is no reason to conclude, that consumption may not be better treated than hitherto, and the mortality of the disease diminished. From much attention, however, to this disorder, and many years' observation, I find no ground to hope that consumption will be ever ranked in any other class, than among the most fatal diseases.

On the Gout.

IT most frequently happens, when any material improvement or discovery takes place, that the advance to it is gradual. Either some collateral light has arisen, materially assisting the inquiry, or, if the thing should be arrived at by direct steps, it seldom attains, on a sudden, the requisite perfection. A great change has, of late years, taken place, in respect to many circumstances of opinion connected with the gout; and I conceive a very considerable improvement in its treatment is likely to be the result. This state of things has come on progressively. Ten years ago, it may be said, that all those fears which Sydenham inculcated on this subject, were in their utmost force. The great dread of disturbing the disease in its progress; a desire to encourage, rather

than to suppress a gouty paroxysm; a sentiment that it was an operation of nature of a most salutary tendency, then prevailed; in addition to which, the gout was coveted, by great numbers, as the grand cure for all other diseases. Under such impressions, with very few exceptions, the patient delivered himself up to all the tortures of a most painful disorder, without a hope of any other relief than that which nature would give, by a gradual subsidence of the disease, and with a dread of the interposition of art, for fear it should prove highly mischievous, and interfere with those great benefits which the gout was supposed to give a promise of. I believe I may say, though all these impressions are not yet eradicated, that great progress has been made towards this desirable end, and that the gout may be considered, in many respects, to be a curable disease, and to be capable of being subdued without those impending

dangers which have, for a great number of years, been most implicitly believed to exist. It may be well imagined, that some would not willingly resign themselves to torment and misery without a struggle; and we therefore have heard, occasionally, of empiricism having been encouraged, in regard to the cure of the gout; but, among those means which might be considered as sanctioned by the regular faculty, the last and expiring effort appeared to have been the use of the Portland powder. After this came into disrepute, the assistance of art appears to have very little interfered in the cure of this disease, for many years. It is true that medical men professed to entertain an opinion, that diet and regimen might subdue the disposition to the disorder; and exercise, and a diet of milk, or a plan of privation, consisting of the most simple food, was held forth as adequate to that purpose. But to such a penance, in the midst of plenty,

the general condition of the gouty, there appeared to be no precise limits ; and it was found, when the plan was relinquished, that the gout soon returned. This was, in a great measure, the state of things and feelings respecting the disease at the beginning of the present century ; since which, however, there have been communications and observations from various sources, which appear to have given a very different turn to the question, and may lead to the establishment of a mode of treatment of the gout, both safe and successful.

I will mention, in order, the sources from whence much of this change has arisen. Doctor Kinglake, by a strenuous recommendation of local cold to the part affected with gouty pains, tended much to disturb the prevailing opinions on the subject ; and, though he certainly was not the first to use this remedy, and it may even be found hinted at by Hippocrates, yet he be-

came the means of its public use in a most decided manner, and might therefore be considered as the origin of the plan, as a public remedy. A few scattered instances may certainly be found out of its use in modern times, but the plan never received a body, form, or consistency, until Doctor Kinglake undertook the subject. If this remedy should not be found necessary to have frequent recourse to, by subsequent observation; yet it must always be said, that this author paved the way materially towards dissipating those deep-rooted opinions and prejudices, which had, for years, maintained an almost uninterrupted influence. The next, in order of publication, who treated upon this subject, was the late Doctor Heberden, who had certainly very ample means of observing the disease, and who dissented from the opinions that had for years prevailed on the subject of gout in many material respects, and

stated his conviction, that much might be done by art for the cure of this disorder, with effect, and without detriment. In the order of things, as they bear upon this question, we must now place the eau medicinale; and, however unpleasant it may be to the profession to confess obligations to a secret medicine, it cannot be denied, that the most ample experience of the operation of purgatives, in cases of gout, has been derived from this source. It has likewise shown, in a most decided manner, that the paroxysm of gout might be quickly subdued, and that it was completely under the power of medicine. The last I shall allude to on this subject, is Doctor Hamilton, of Lynn, who, in a posthumous publication on gout, evinces, that the powerful remedy of blood-letting may be employed in this disease, not only without detriment, but with relief, and that it was the plan which he had principally employed for the cure

of gout in his own person, for a great number of years, with a conviction of its material usefulness. These testimonies were supported by observations of sufficient extent and accuracy, to allow the following inferences to be confidently drawn; that a paroxysm of the disease was capable of being rapidly cured; and that the disturbance of a fit of the gout, by various means, is not attended with all the dangers that have, for many years, been apprehended.

I had suffered from some fits of the gout; the first of which happened in 1799; and, though in the two first attacks, which occurred with an interval of three years, I had yielded to the sentiment which then prevailed, I afterwards received impressions, which occasioned some change of opinion respecting the powers of medicine over a paroxysm of this disease. Some years ago, my attention was excited by the result of a fit of gout, connected with diarrhœa, which

ended very contrary to the impression I then entertained respecting the event of that disease, connected with such a symptom. Compared with previous fits, this was mild, and the patient recovered most satisfactorily. From this time, whenever opportunity offered, I recommended opening and purgative medicines in gout; and, in proportion to their free operation, I frequently perceived benefit to arise. Previous to the effects arising from the use of the eau medicinale being made public, I was consulted by a patient, who had laboured under the gout for many years; for the previous four years, most excessively; so that the disease was almost a continuation of fits; the limbs were much contracted, and the powers of motion greatly impeded. This is a case which the most sanguine practitioner could not expect general success in; but, such were my sentiments respecting the advantages of purgatives in

gout, that I adopted that plan of relief; and I have the pleasure to say, that the patient has suffered, to the present time, infinitely less gout, and has enjoyed better health; which I judge to be due solely to the freedom with which the bowels have been acted upon. When, therefore, the account of the effects of the eau medicinale was published, it might be well conceived I did not hesitate in considering the benefits which were stated to ensue as probable, and consistent, to some extent, with my own observations. When I became acquainted with the publication which announced its efficacy, I proposed to my medical friends a substitute for this secret medicine, and which should produce some similar effects: this was elaterium, in doses of one or two grains, with forty or sixty drops of tincture of opium. In one case, I soon had an opportunity of finding this remedy to be completely effectual; and Mr. Green,

of Lewisham, administered it in smaller and repeated doses in two instances with the best effect ; in one of them with such rapid success, that the patient thought he had taken the French medicine. I was soon after this awoke to the necessity of employing some prompt measures for the cure of a paroxysm of gout in my own person. My professional engagements caused the appearance of indecision, in respect to the remedy : but the narrative, as taken at the time, will be the best introduction of the subject to the reader.

The patient is a healthy robust man, forty-five years of age ; he had experienced three attacks of gout, at the distance of three and five years between the paroxysms. After observing certain symptoms of its near approach, he was attacked with it in the joint of the great toe of the right foot, the usual part before attacked, on the 7th of September, 1810, when he employed a slight effusion of cold water

on the part affected with apparent relief. On the 8th, the effusion of cold water was employed in the morning: in the evening, the disease being somewhat increased, the foot was kept in cold water for an hour and a quarter. An opening medicine had been taken this day, which operated mildly; an opiate was taken in the evening. On the 9th, the disease appeared to be stationary; there were two loose evacuations on that day; engagements prevented much attention to the disease, but it was proposed in the morning to evacuate the bowels powerfully. On the 10th, the patient was prevented by engagements from putting the proposed plan of yesterday into execution. The body was now bound; towards the evening the disease was worse; the foot was plunged into cold water, and retained in it for not more than a quarter of an hour, as the stiffness and swelling appeared to increase, and the limb became cold and uncomfortable: the patient took

thirty drops of tincture of opium at bed time ; had a restless night, with increase of pain and swelling. On the 11th, at four in the morning, he again determined to place the limb in cold water, which was done for an hour and twenty minutes ; the limb during this time was cold and uncomfortable, the swelling in the affected part increased, and the pain afterwards became more violent. In about ten minutes after the patient had lain down, his attendance was required at some short distance, which was effected, in a carriage, with much difficulty and pain : he returned home at half past six o'clock with the disease considerably aggravated. Under such circumstances, it was evident to him, that he must either submit to be confined, or use some prompt and decisive means for relief. For this latter purpose, he immediately took eight grains of calomel, it being the only purgative at hand. At eight the calomel showed no signs of operating ; when a

mixture of infusion and tincture of senna with vitriolated magnesia, was begun to be taken, containing three drams of the latter in each dose. At ten the medicine began to act upon the bowels, followed by four copious evacuations by one o'clock: the limb was now somewhat relieved: at two a copious bilious evacuation took place, which was also followed by relief. As the patient had several engagements, and must at five, if possible, go from home, he was in doubt whether he should excite the bowels to more action; but he found himself so much relieved, that he determined, if in half an hour other effects did not ensue from the medicine, to have recourse to it again; and he took another dose at half past two o'clock, which operated twice before half past four, occasioning acrid bilious evacuations. At five, though the pain was much abated, it was still considerable. Under these circumstances, he got into his carriage, visited patients

at some distance from each other, and returned at half past seven, after which two operations of the medicine took place during the evening, and the pain in the limb was much abated. About two ounces of Epsom salts, with about five of infusion of senna, &c. were taken, in divided doses, as explained. During the day, weak broth was repeatedly drank, and at bed time forty drops of tincture of opium: the night was passed tranquilly, and without pain. On the 12th, he was able to attend his professional engagements, with no other pain than that induced from pressure on the part, and on the motion of the limb. From this time the swelling and debility of the limb became rapidly better, and the patient was able to wear a common boot in a week's time.

This case shows decidedly that a regular fit of the gout may be rapidly cured by exciting the intestines to powerful action, and that this desirable object may

be accomplished by the aid of known remedies. If, however, the secret medicine had not been observed to act as a powerful cathartic in many instances without detriment, and hence supplied an abundant experience respecting that operation in gout, it is most probable I should not, in so determined a manner, have recommended purgatives, as above stated, nor in the present instance have so decidedly and perseveringly acted upon the bowels, though my prior observations and sentiments led me to adopt the opinion that purgatives might be highly beneficial in this disorder; and other circumstances had prepared me to view the gout as a disease capable of cure without those risks that had for many years been constantly impressed upon the minds of gouty people, as probable to arise from a disturbance of the paroxysms of this disease. This conduct, therefore, which ten years ago might have been considered to be an act of temerity, became now a

proceeding encouraged and supported by many probabilities. Since this period, I have had numerous opportunities of seeing the operation of cathartics in various circumstances of gout, which have all tended to confirm me in a decided opinion, that they are completely capable of subduing the disease, under common circumstances. It must not, however, be here inferred, that they are able to restore a frame broken down by long and repeated attacks of this cruel disorder ; nor are they capable of promoting the speedy absorption of gouty concretions, nor of loosening the contractions of limbs caused by multiplied repetitions of this disease ; under all which circumstances, however, they will be frequently found to be advantageous. To subdue a paroxysm of gout also, it must be observed, that the operation should be powerful : and although we may not be able to show the exact reason of this, it must be kept in mind, that attention to this point is the material circumstance to

be relied upon for complete success in subduing the paroxysms of gout.

The use of purgatives for the cure of gout, is not an untried practice : on the contrary, they were recommended expressly by Alexander Trallian, in the fourth century, as most useful remedies under some circumstances of this disease. In more modern times, we may learn, from the *Historia Medicinæ* of Friend, when speaking of Alexander Trallian on Gout, that purgatives have been resorted to in this country ; but which he seems to speak slightly of, because they appear to have been recommended by persons of no authority. Hoffman, on the contrary, was friendly to purging in gout, under some circumstances, and particularly noticed the efficacy of the purging waters of Carlsbad in gouty cases, and even in the paroxysms of the disease. It must therefore be evident, that cathartic medicines have been observed, before the present times, to pro-

duce benefit in the gout; and this benefit appears to me to be so very conspicuous, that it may become a matter of some surprise that they should ever have fallen into disrepute, in the cure of this disorder. We ought not, however, to consider, because this has happened, that their efficacy has been sufficiently explored, and found wanting; for we shall find even very efficacious remedies for diseases in the present practice, about which opinions have been very wavering and unstable; yet they have, by their virtues, forced themselves into credit. Mercury, in the cure of lues, was for years considered to be by many not only a doubtful, but a mischievous, remedy; but it has turned out to be the only specific we are yet possessed of for any one disease. The use of Peruvian bark was brought into practice after some struggle even about its efficacy in curing that disorder in which it has been for years held to be paramount,—intermittent fever: and if these

very efficacious remedies for their respective diseases, have held a very different and doubtful reputation, we should not feel backward at allowing the probability, that purgative medicines may be efficacious in gout, though they have undergone some trial, and fallen into disuse. The effects of theories in the gout, and opinions, either respecting the danger of meddling with the paroxysms of the disease, or notions regarding its salutary tendency, have bound down the medical practice for its cure, for many years, to the greatest state of insignificance. These have formed a thorough opposition to all effectual remedies; so that every medicine that has had for its object the cure of gout, has, in modern times, appeared to be a new remedy for the disease: and, in this point of view, many of those that have of late been proposed may be so considered, but in no other respects whatever.

It ought to be kept in mind, that if a remedy cures a disease, it may only

accomplish this by a certain quantity, or by producing a certain proportion of effect, of which the quantity may, in some cases, be the guide : but, until these be clearly established by experience, the remedy may want efficacy. It is not in medicine, as might, perhaps, be imagined, that the remedy which will cure a disease in a large dose, should always do good in a small one ; but, until some measure of this kind is found out upon which its efficacy depends, the most powerful medicine may be considered to be ineffectual, and appear to be so. I would instance the Peruvian bark, as the most familiar example of this, in the cure of intermittents. A quantity of this medicine given to two ounces during the intermission in an ordinary case, seldom fails to stop the paroxysm ; but a dose of five or ten grains taken every six hours, might be given for a long time without producing any materially beneficial effects. The

Peruvian bark is not, therefore, to be considered as possessed of no efficacy in intermittents, because ten grains of it, given every six hours, is not capable of subduing the disease; for it has been found out, that a larger dose than this is completely effectual. There are numerous other instances similar to this in the practice of medicine; and I judge that the efficacy of purgatives in gout has been slighted, because the proper and effectual dose has not been given, or the proper effect or operation has not been produced by their use.

If it be, therefore, established, that full and copious purging is the remedy to subdue a paroxysm of gout, it must not be considered that cathartics do no good, because when given, and not arriving at that quantum of operation, they do not subdue the paroxysm.

On the 27th of August, 1811, the subject of the foregoing case felt strong symptoms of returning gout. He took

five grains of calomel early in the morning of the following day, which operated twice; but, on account of his engagements, he could not find time to take any additional cathartic. Late in the evening of this day he returned home, and, on attempting to walk about a quarter of a mile, he was mortified with the certain sensation of the disease having made progress. He got home with some difficulty, and at bed time was glad to relieve himself by walking up stairs backwards. The limb began to swell above the shoe, the great toe was inflamed with lancinating pain; every sensation, in short, indicated the certain approach of an arthritic paroxysm. Under these circumstances, having been wearied by the day's employ, he determined to postpone the purgative treatment, as before adopted, until the morning. But as he had experienced from opium alone much benefit in a former attack of gout, it was determined to

endeavour to assuage the pain by the use of this remedy in such quantities as might be required to effect that purpose, with a hope of passing the night with some degree of comfort. With this intent, fifty drops of tincture of opium were first taken, which, after an hour, appeared to procure no mitigation of pain, but the paroxysm seemed to be proceeding, when thirty drops more were taken, with a determination to repeat the dose until some ease was procured. This, however, did not become necessary. In half an hour from the time of taking the last dose, the pain ceased, and the patient slept through the night with the utmost comfort. In the morning there remained only an inconsiderable swelling, and no farther inconvenience whatever was experienced from the disease. The bowels were freely opened the next day ; after which the usual avocations were pursued. To effect this operation, however, no less a quantity than two scruples

of jalap, and ten grains of gamboge, were taken, before the proper effects were produced, which were unaccompanied by pain, or any uneasy sensations. In the afternoon the patient went on a professional visit to Dartford, a distance of ten miles from Greenwich, without experiencing the least inconvenience. From this to the present time, (April 2, 1813), no symptom whatever of gout has been perceived, and uninterrupted health has been enjoyed.

The effects of opium in this attack certainly exceeded any expectations I had then formed from its use for the actual cure of this disease: it is, however, an important fact. The success was so complete, that I do not hesitate to consider, that a similar event may be expected to occur from the same mode of proceeding. In the use of this medicine also, it must be observed, that the benefit is not connected with a small dose of opium; but the quantity is de-

finer, by its producing a complete cessation of pain. Fifty drops of laudanum were not, in the present instance, adequate to this purpose, nor would they have procured any material benefit. This effect from the use of opium in gout, has been noticed particularly by the late Doctor John Brown, who has strenuously maintained the efficacy of this remedy, combined with spirits, in subduing the arthritic paroxysm. This he frequently proved in his own person, and before witnesses. But his example has not been followed, and the opinion has fallen into neglect ; because Doctor Brown's prescription connected both these remedies together, which, in the manner directed, was, in fact, little less than a recommendation to a fit of inebriety for the cure of the disease. This author's fixed creed was, that the operation of opium and spirits, or diffusible stimuli, were similar and analogous ; and, therefore, he frequently recommended them together, as in the present instance, for the purpose

of assisting each other. But, on other occasions, I have ventured much to doubt the accuracy of this opinion, and find the same reasons to prevail here, on the subject of their similarity of operation. The benefit arising from Doctor John Brown's plan of curing the gout, may be due principally to the use of opium, which he was in the habit of recommending in large doses. But I am not acquainted with any recorded instance, except the one now related, in which a fit of the gout has been known to have been entirely overcome by the use of opium alone.

We are now naturally led to a consideration of the circumstances connected with the effects of these two means of subduing an arthritic paroxysm. When two medicines cure a disorder, it would, on first consideration, be expected to find something similar and common to them both, in their mode of operation. There is, however, in medicine, some variety in regard to this. Thus some dropsies may be cured by purgatives, or by diuretics,

which are medicines affecting distinct organs; but, by their operation, they each subduct fluid from the general mass; and hence their effects may be reconciled on a common principle. But, in the case before us, the same disease appears to be subdued by remedies in their general effects exceedingly opposite. In so far as the alimentary canal is concerned, the action of purgatives tends to stimulate and to irritate; that of opiates, to appease irritations induced: the effects of the first are to relax the bowels, the other remedy possesses the property of restraining such an operation. Nevertheless, these medicines, though so opposite in their general character, may, it appears to me, be supposed capable of subduing an arthritic paroxysm, without contradicting the general and common course of observation.

If we suppose the cause of gout to produce its effects principally by irritative action, we shall not be surprised to

find that opium, through whose operation irritation is capable of being assuaged, should produce material benefit. The action of purgatives, however, and their quick and decisive effects, in subduing a fit of the gout, might lead to the inference, if other proofs were wanting, that this cause resided in the alimentary canal, and that it is capable of being removed, or its morbid action much changed, by the exciting and stimulating effects of cathartics. Whether, therefore, this cause be removed, or its morbid action in the parts much subdued, the same effects may be considered to be produced, for a time at least, much in the same manner, as a familiar example, that the painful affection of toothach is suppressed by a large dose of opium, or the disease cured by extracting the offending part.

The symptoms attending gout give every reason to suppose, that its principal and exciting cause resides in the alimentary canal. No fit of the gout comes on

without some derangement of these organs, which, for the most part, evidently precedes it. This, therefore, being the original and constant seat of the disease, there appears no improbability in the thing, as a mere supposition, that purgatives may produce some advantageous effects in that disorder.

It is certainly difficult to conjecture what the real essence or nature of this gouty cause is ; but, whatever it may be, it is capable of showing itself by affecting parts distant from the original disease ; and hence it has been conjectured, that the morbid matter was, by an effort of nature, thrown on the surface, there to remain harmless, and at a distance from the vital organs. This supposition, which is as difficult to comprehend, from a contemplation of the structure of the human body, as it is to refute, has had a paramount influence, for a considerable time, in regard to the cure of the disease.

But it must here be observed, that not only the real characters of morbid causes, but the connexion of morbid causes and effects, are frequently highly obscure, and by no means peculiar to the gout. We can frequently gain no precise knowledge, on these subjects, to form a basis to reason upon; but that which may be derived from the observation of morbid causes and effects, may often serve for good practical purposes; and the sort of union, or connexion, which exists between them, is frequently of material consequence in the cure of diseases. In some disorders morbid causes and effects cease to influence each other so soon as they co-exist, as in the instance of lock-jaw from wounds; in which cases we are taught by experience, that the removal of the cause will have no influence on the effects produced, which are the disease itself. If a lock-jaw should, therefore, happen from an injury to the finger, the removal of the injured

part will not tend to cure the disease. Without experience, however, to correct our opinion, there does not seem to be a disorder, which could, from the appearance of things, be more capable of being subdued than this, by removing the exciting cause of the affection. The various kinds of fevers, likewise, require most frequently to be treated according to the evident disease of symptoms, without paying much regard to their exciting causes. On the other hand, paralysis, and other diseases, which take their origin from the brain, are found to be the most successfully treated, by attending to and endeavouring to subdue the original cause of the affection. Again, the chorea sancti viti, which has, until of late years, been treated as a general disease of the nervous system, is now considered to be most successfully cured by the use of purgatives, that act upon the primary cause of the disease, which is judged to consist of a vitiated state of the alimentary canal,

or of irregular actions in those parts. The sort of connexion, therefore, which exists between morbid causes and effects, being various, constitutes a very important branch of medical knowledge, and which can only be perfected for practical purposes, by accurate observation, and repeated experience.

The practical advantage, or usefulness, of the observations that are now delivered respecting the cure of the gout, must depend chiefly upon the accuracy of such experience. Hitherto, in the treatment of the gouty paroxysm, the chief attention has been paid to mitigate the symptoms, without entertaining any precise notions respecting the effects that might be produced by acting on the original cause and source of the disease. The view that is now taken on the subject, and the probability of success in the suggested treatment, is founded upon the supposition of a very intimate connexion between the original cause, and the external and

evident symptoms, which, from the experience adduced, appear to be most intimate, and so necessarily connected, that there needs a species of co-existence of the original cause and its effects, to constitute gout; and that the immediate effects of this cause can no longer exist than as continued by it. If so, there appears to be little other proceeding necessary, than to endeavour to subdue the primary affection, with which the other parts of the disease will necessarily give way. To render this as clearly demonstrable as possible, the parts attacked with the gout should not have suffered from it previously, in such manner as to have altered their healthy organization, as happened in the subject in whom the arthritic paroxysm was twice subdued in a very expeditious manner, as above related; for otherwise some impediments may exist to success, equally complete and rapid, though even such impediments will not render the beneficial effects of

proper doses of purgative either obscure or indecisive.

We ought not now to hold the disturbance of a fit of the gout in the same dread it formerly excited. This has, of late years, been so often attempted, and the fit entirely subdued, that it can no longer be considered as an experiment. If there had been any truth in the supposition, of actual morbid matter being thrown on the surface, occasioning the gout; and its retrocession being caused by disturbing the paroxysm, attended with serious effects, in consequence of internal parts being attacked, this could not have failed to have shown itself in numerous instances of late years, to the demonstration of many, and the destruction of not a few. But as this has not happened, and the instances of deaths from such supposed proceedings are very rare, the opinion cannot be entertained generally; and its infrequent occurrence, as supposed, though vigilantly

sought after, must excite doubts of its at any time actually happening.

The idea has, I apprehend, too generally prevailed, that the gout, when it occurs, is a disease of the whole system ; and the notion conveyed by the expression, that the gout is in the habit, certainly gives currency to the opinion : and the idea of a disease being hereditary, as the gout is, might, unquestionably, imply, that the whole of the body was equally, or in some degree, participating in that which was transmitted from the parents, if experience did not, in innumerable instances, show that local defects, and morbid local action, can be transmitted from the parents to their progeny. The first attacks of gout frequently affect the general system very little, and some not at all ; so that they consist of a derangement of the stomach, followed by an inflammation in the great toe. Such attacks as these certainly do not raise up in our minds the same ideas as are

caused by a fit of fever, in which every function of the body participates, more or less ; and the phenomena, undoubtedly, of many arthritic fits by no means augur its being the aggregate of actions of the whole of the functions of the body, or even of many of them. The idea of this universal disposition of the whole body to gouty action, however, has greatly tended to render it at all times, until of late, a very formidable disease. On this subject, the late Dr. Heberden made the remark,—“ Nor has experience satisfied me, that in the beginning it (the gout) is so very apt to mistake its way to the extremities, and, instead of them, to fix upon and oppress the functions of the brain, or lungs, or stomach ; though, in its advanced state, this sometimes happens.” The gout, in fact, from its symptoms, appears to be a very local disease in the beginning, affecting the stomach and alimentary canal, which raises that species of inflammation in the

extremities, properly denominated podagra, with little or no fever or affection of the other parts of the system. By repeated accessions, however, the extent of influence of the gouty cause is much enlarged, and the whole system may at last be brought under its peculiar influence, and become liable to its attacks.

The idea of this universal influence of the gout has had this effect, that every disease which has happened during an arthritic paroxysm, has been considered to be the gout ; and every inflammation which may have occurred, under such circumstances, has been judged to depend upon a gouty origin. When these last, however, have taken place, the favourers of the old system of treating the gout have been obliged to abandon their notions, not without reason, and to adopt the same measures as if the disease had happened in a common subject. Thus it has been considered to be right to bleed in peripneumony, and

in other inflammatory disorders which may occur during the arthritic paroxysm, though these diseases were considered to be caused by the gout, and the principle of treatment of gouty cases totally excluded the propriety of having recourse to blood-letting. If the gout, however, was judged to be a disease in a considerable degree local, this would not preclude the probability, that other diseases might exist in the body at the same time. Thus, dispositions to pneumonic inflammation, peritonitis, and other inflammations of local origin, might exist, or these diseases themselves have made some small progress, and yet have been obscure. Under such circumstances, a febrile attack, however originating, might have the power of exciting or increasing these affections to such an extent, as to render them evident and serious; and, in this way, an arthritic paroxysm, with fever, would readily cause such local increased action, without being the

actual and essential cause of peripneumony, or of other inflammatory affections, that occasionally occur during the gout. It appears to me, that these diseases may, in this way, frequently so happen; and such an opinion as this would undoubtedly preserve the consistency of those who maintain, that the gout will not bear the evacuations of blood-letting, without detriment, but who employ it in the cases above alluded to.

The formation of chalk-stones has tended much to confirm an opinion, that there was something in the habits of gouty persons, which ought to be thrown off; and which, if not allowed to be done by permitting an uninterrupted paroxysm of gout, would be likely to occasion grievous mischief in various ways. But the collections of such matter appear to be occasioned by the mere local action of the parts, in which the system does not participate; nor is there any real proof, that the materials of these

concretions are more abundant in the habits of arthritics, than in other persons ; but the gouty inflammation certainly fits the parts more particularly for this peculiar action. I, however, now know an elderly lady, who has abundant chalk-stones about the joints of her fingers, who never had a fit of the gout, nor any symptom indicating the presence of that disease ; and which is a proof that no general constitutional action is necessary to cause them, and that they are formed independent of any general arthritic action. The father of this lady was a martyr to the gout, and appears to have transmitted to her that peculiar local organization necessary for the formation of chalk-stones. If, therefore, the causes of these concretions are local, and derived mostly from the action of arthritic inflammation, but not necessarily depending upon it, the general preventative will be, to avoid, or quickly subdue, an arthritic

paroxysm ; and the fear of such matter floating in the habit, and disposing to various evils, ought to be laid aside, without better proofs than those from which it has hitherto derived support.

A notion has very generally prevailed, that the gout is a disease not capable of cure ; and this, so far as the treatment of the paroxysm may be concerned, until of late, has been admitted ; for it was not usual to interfere much with the fit, but it was left to take its course, without any direct effort to subdue it. In regard to the power of preventing the returns of gout, it was extremely evident, that this could be accomplished, but at the expense of such supposed comforts, that there were few persevering enough to effect this purpose by diet and regimen : the examples are, therefore, rare. In speaking of what may be effected at the present time, if by entirely destroying the train of symptoms connected with the disorder, and restoring the parts to their

healthy functions in a very short space of time, comparable to the natural course of the disease, can be considered to be a cure of the disorder; then I judge that the gout can be cured with just as much certainty as intermittent fever. The promise of the disease not returning depends upon other circumstances, which are seldom sufficiently persevered in, and those things avoided which bring the cause of gout into activity. But, in the same way, as no one brings into doubt the cure of intermittent fever by the bark, because patients may happen to live in a marshy country and contract the disease again, so the gout is neither more nor less cured because the parties subject themselves to those causes that invite a return.

There have never been two opinions entertained respecting the causes of gout, which have ever been attributed to some things that the rich possess and enjoy, and which the poor have not. It has, therefore, been inferred, that low and

spare diet discourages the disease, and that those who indulge at luxurious tables, and those who partake of abundance of nourishing food, with the use of fermented liquors in greater quantities than the wants of nature, from the exertions undergone, demand, are the most liable to the gout. But it has also by observation been found, that those who partake of abundance of nourishing food and much fermented liquors, frequently escape this disease while they sustain laborious occupations. The dietetic and prophylactic plan, therefore, for the absolute prevention of the gout, may be summed up into a proper diet, the disuse of fermented liquors, and the following of laborious occupations.

Though the gout is certainly a most severe human scourge, yet it has frequently long intermissions, especially on its first attacks, and is soon lost sight of while the disease is not at hand. It must, therefore, be evident, that few will

be so impressed, while in possession of healthy feelings, with the miseries of a remote disease, as wholly to disentangle themselves from what are considered to be the innocent enjoyments of life, such as the table affords in moderation and prudence. But this, which is called moderation and prudence, without a continual laborious exercise, which none but those impelled by necessity will submit to, will bring on the gout, particularly in those inclined to the disease. It may, therefore, be useful to endeavour to attain to such a plan of proceeding as would more coincide with the feelings of the parties interested, than the preventative means hitherto recommended, and which might tend to preserve them from much of the misfortunes of the premature inactivity and misery derived from this disease. The progress that has been made of late in the treatment of gout, may, I judge, be capable of aiding towards such beneficial pur-

poses, and to a certain extent, though not without some sacrifices on the part of the patient; but such, it is presumed, as many prudent persons might submit to without much reluctance, and with a tolerable certainty of avoiding much misery.

I, however, most sincerely recommend to those who will admit of no restraint of indulgences, to allow the gout to take its course, as the most prudent conduct they can pursue. Our views are certainly much limited, in respect to the wise designs by which we are constrained to submit to many diseases. But if, among the many, I were to select one, which more evidently appears to be connected with temporary good, under some circumstances, it is the gout. This disease comes on in persons who may always be supposed to use more of the enjoyments of the table than are requisite for their actual wants, or proper for the purpose of meeting the exertions they undergo; for labour

is a strong counteracting principle to the gout. These indulgences with some, as has been allowed, are in moderation, but in others they go on to excess, and in many soon bring on fulness of habit, so as to dispose to apoplexy, palsy, and inflammatory diseases. Considerable abstemiousness would be a remedy for this, which many parties will not submit to; but a severe fit of the gout is equally effectual. There is connected with it a necessary temperance, for a time: the fatigues of pain, and watchful and sleepless nights, tend to lower the habit. If, on the other hand, such persons were to be free'd from the gout by those rapid means which art has lately supplied, it appears to me not to be improbable that life would be shortened. A quicker return to indulgences would follow, than could happen on undergoing a regular fit of the gout; and the fulness of habit would be more encouraged; its consequences brought

sooner into activity, which, by their nature, tend rapidly to shorten life. Under such circumstances, I must allow that the disturbance of a gouty paroxysm might work considerable mischief; and that nothing is so likely to prolong life in such subjects, as the severe misery of that disease.

The gout will not, generally, be roused into immediate action by the application of causes, which tend to excite it, until by repeated attacks so great an irritability is acquired, as to suffer no irregularity with impunity. The arthritic cause, therefore, may generally be considered to be acted on slowly, and slowly to arrive at that state which produces the phenomena of gout. We ought not, therefore, to conclude, because a state of irregularity is continued for some time without producing the disease, that the sort of life that has been pursued does not lead towards it. The inference ought rather

to be, that this disorder is slow to be excited into action.

The causes tending to encourage the gout combine in effort, but are not all equally qualified to produce the disease. If, therefore, we could separate this sort of league, and, more especially, withdraw that which possesses the greatest power, we should, consequently, much weaken the confederacy. And, in addition to this measure, if those causes which were allowed still to remain, could be brought to act with great moderation, it is plain that the returns of gout might be expected to be less frequent, and a chance afforded of avoiding its ultimate and greatest severity. Of these causes, the one that can be the most decidedly and entirely withdrawn from its co-operation to produce this disease, and which is the most material agent of all others in inducing it, is that of fermented liquors, which I should recommend to be entirely given

up in all their forms, as constituting a part of the daily beverage.

Corporal, as well as moral habits, are more formed by what is daily acted, than by what is unfrequently done. Habit is the disposition to the same thing, whether of activity or inaction, which has been acquired by being frequently and perseveringly undergone; and, whatever is slow in being attained, whether to cause a habit, or a disposition to a disease, which may be considered to be a strong tendency to certain definite morbid actions, or frequently a disease itself, will be sooner accomplished by daily efforts towards those ends, than by infrequent and intermitted exertions. A person attains to any accomplishment of activity or strength, much more by daily exercises of short duration, than by the aggregate of the same time employed for that purpose only one day every fortnight: habits also of such a nature as are neither agreeable nor desirable, are

sooner formed by daily opportunities of action, than they could be by infrequent and accidental effort. In like manner, a moderate quantity of wine, or fermented liquors, drank every day, is more liable to ingraft a disposition to the disease in the habit, or to produce the gout, than the sum of all these quantities taken infrequently, and casually.

The moderate indulgence in wine and other fermented liquors, is certainly harmless, in a moral point of view, though pernicious to the gouty ; but necessary, to a certain extent, to the laborious. It may aid these in their toils, and their labours tend to render it innocent. But arthritics are not persons in situations of life who undergo continued laborious exertions. What they may undertake in this way, is intermitted at will, and irregular : labour is not necessary to them, and therefore they will not submit to it : as a remedy, on these accounts, for the gout, it can be very infrequently

employed. The principle which opposes the gout, in the laborious, grows up gradually with their exertions, and is kept in its full spring and vigour by employs allowing very little intermission; the fatigue which is daily undergone is thrown off, by the ordinary cessation from labour, and by refreshing sleep; and the morning is ushered in without any perception of inconveniences arising from the toilsome efforts of the day which is just past. This, therefore, is the sort of labour which opposes the gout. But this is the labour to which the wealthy will not submit; and, therefore, to attain the same end, they must be contented to resign some of their habitual and unnecessary indulgences, or submit to the consequences which arise from them. There would, however, I judge, be few of these, if the disease of gout could be brought in full view in its course and consequences, which can be very imperfectly painted by the exertions of any pen, or recorded in suffi-

ciently strong terms, to have all the weight and effect which those attending arthritic patients in the latter periods of its attacks, must be forcibly impressed with.

But it may be very truly said, that those who have undergone the most severe privations, which have been exacted for the prevention of gout, ought to consider, that they have bought off the misery of the disorder at a cheap rate; and many would cheerfully submit to the same, when too late; and the whole consequences of the disease has been displayed to them through their own feelings. The sacrifice, therefore, of the indulgence of fermented liquors, as primary and necessary, ought to be cheerfully made, since they act so important a part in inducing gout, that there will not be found an example of a person acquiring this disease, who has not made a free and rather unrestrained use of them, and which, therefore, must tend much to

excite it, when the disposition to the disorder has, either hereditarily, or by indulgence, been grafted in the habit.

Though fermented liquors, by their peculiar effects, are the chief causes of bringing on the gout; yet when it has been established, the returns of it may certainly happen, under some circumstances, without their incitement, though, I apprehend, not near so frequently. Among other causes that pave the way for the approach of gout, after it has been established, is a fulness of habit. This the use of fermented liquors certainly does not promote directly, but it is, in a considerable degree, frequently the consequence of indulging in them. Nothing allays thirst equal to simple water. When it becomes the common drink, the quantity of fluid taken will generally be much less than when fermented liquors are substituted. Water will only, in general, be taken for its simple usefulness. But the addition to the incitement for taking a greater

quantity of fluid, which the gratefulness of fermented liquors promotes, tends much to augment the actual bulk of fluid which is daily drank. Fermented liquors, as such, with the exception of malt liquor, do not add to fulness of habit in any material degree. Simple water, if taken in the same proportion, will tend equally to increase the bulk of the body, and therefore to promote a fulness of system, which I have never been able to discover to have happened, without being promoted by considerable quantities of some sort of fluid being taken, the quality of which appears to be indifferent, provided it possesses nothing pernicious, nor directly inducing disease. This has been too little adverted to; for when fermented liquors are prohibited, to prevent fulness of habit, these prohibitions have certainly only the desired effect, by withdrawing somewhat from the incitement to drinking fluids. This precaution is therefore only partial, if unconnected with restrictions re-

specting the general use of liquids. I would, therefore, recommend the gouty, who happen to be of full habit, to limit the quantity of fluid taken in various ways within the bounds of great moderation, and to be circumspect and solicitous on this subject.

On the plan I am now proposing, I would allow those subject to this disorder, to use plain diet, with moderation in regard to quantity, without being confined to particular articles of food. For those of full habits, moderately nutritive solid food would be the most proper, and soups and broths should be avoided, for the reason above stated; but those who happen to be without this disposition, need not attend to such restriction. A mixed meal of animal food, farinaceous substances, and vegetables prepared by plain cookery, might generally supply the dinner; and there appears to me to be no other inconvenience to gouty people in using plain and various sorts of food at the same time, than the

incitement it gives to take larger quantities of nourishment than necessary, which fills and debilitates the stomach, and of course hurts digestion. On this account, it would be a good rule for arthritics never to indulge in a dessert after dinner; but whatever fruit they may take, which should be in its natural state, would be better to be eaten before dinner, or it might occasionally make the principal part of their supper. It appears to me, that more harm has been attributed to food in producing the gout, than it really is entitled to. There can, however, remain no doubt, that high made dishes, both by the stimulus they impart to the stomach, and the incitement they afford to take more food than the appetite would otherwise demand, will tend to reproduce the disease, or perhaps even to cause it in a habit highly disposed to this disorder: but there is no evidence that I am possessed of, which shows that food of any quality, without fermented liquors, may

be held as the primary excitement to this disease, in any one instance.

Having now stated all that appears to be necessary to my plan, in regard to two causes, which have been supposed to contribute much to occasion the gout, fermented liquors and food ; and having, in the course of my observations on one of these subjects, introduced some remarks on laborious exercises, as inducing a countervailing principle to the gout, I shall have little to add on the subject of exercise. The state of modern society, or of any cultivated community, will cause many to be brought up in occupations which cannot be connected with labour, and who cannot, therefore, oppose the inroads of the gout by such a remedy, however efficient it might be. But there is scarcely any situation which precludes all exercise, or that will not allow some leisure, which might be employed for that beneficial purpose ; and, it ought to be

a general rule for those particularly who are subject to the gout, to devote as much time to actual exercise, as their occupations will permit. Indolence and inactivity have certainly not the demerit of inducing the gout ; though to these much of the disease has been attributed, but they can only be considered as concurring with other causes to this effect. Of themselves, they cannot operate towards the production of the disease, otherwise the gout would necessarily prevail, to a much greater extent, among the female sex, than the male ; because the female occupations and pleasures, among that class who are liable to the gout, are such as encourage greater inactivity and indolence, than with those of the other sex ; yet the gout is comparatively a rare disease with women. This may be mostly attributed to their taking less of fermented liquors than men do : and most of the instances in which females fall into the gout, may

be traced to the consequences of hereditary disposition to that disease. These considerations appear to me sufficiently to explain the causes of females being less liable to the gout, though it has been held, from ancient times, that their sex occasions the impediments to its frequent occurrence in them.

The proceedings above suggested in regard to diet and regimen, though they may not actually prevent the inroads of the gout, will, I judge, tend materially to prevent its frequent return. We now come to a consideration of what may be medically done towards the same purpose. It has been stated in what manner a fit of the gout may be subdued ; and we will suppose, after this has been effected, that the patient abstains from fermented liquors for daily beverage, that he takes plain food in moderation, and that he employ all the exercise his occupations will allow, or his habits of life actually permit. There now re-

mains another circumstance to be mentioned, of considerable importance, and which, though not yet admitted among the causes of gout, has a most material effect in inducing the disease: I refer to a state of inactive bowel. I have known some persons who have undergone fits of the gout, who were naturally of a relaxed state of bowel, and these were drinkers of malt liquors; but who, I found, on inquiry, never laboured under this disease without an opposite state of the body first occurring. I attribute the quick return of the gout, in my own person, to this cause, as from the time of subduing the first fit by cathartics, a state of bowel with that tendency, and which was not sufficiently regarded, continued until the other attack, which has been mentioned, occurred; since which, more attention has been paid to this particular, and every thing has gone on satisfactorily. The complaints against the secret medicine, which

many make, are not, that it does not cure the paroxysms of the disease, but that it does not prevent the returns of the fits of gout, which are very frequent after its use. From the conversation I have held with those who have been in the habit of taking this medicine, I can perceive the same reason to prevail. In whatever way this remedy subdues the disease, whether by its anodyne or purgative effects, or by these combined, there is left a tendency to a bound state of bowel after its use, which lays the foundation for a quick return of the disorder: and this being often repeated, the parties become tired, and appear rather to prefer a regular fit of the gout, and an interval of health, to repeated attacks of this disease, shortened by the use of medicine, and only imperfectly subdued. For the same reason, it has occurred to Sydenham and Heberden to witness returns of the gout after the use of purgatives, since

their operation is not unfrequently followed, if not provided against, by costiveness. The agency of this cause appears to be highly material to constitute a fit of the gout; and it is, therefore, of particular importance to be prevented from taking place in the gouty habit, and which should be counteracted by the most simple, but, at the same time, sufficiently efficacious purgatives. The waters of Carlsbad, which possess considerable purgative qualities, are celebrated by Hoffman as highly useful in gouty habits; and the use of any aperient mineral water, after a fit of the gout, would be highly advantageous. It is more agreeable to the feelings of a patient to use mineral waters, than to be constantly taking medicine, when even equal efficacy may be expected; it may be proper, therefore, for those who have the opportunity and the means, to pay occasional visits to the purgative mineral

springs, such as those of Cheltenham, Lemington, &c. ; but it ought to be held in mind, that they will be no longer effectual in this disease, than while the bowels are kept in sufficient activity. The continual use of purgatives, for some time, by such means, may tend to prevent the bowels from falling so soon into a state of costiveness ; and in so far the use of mineral waters, of purgative qualities, may possess some superior advantages. But it ought not to be forgotten, that these waters will not be equally proper for all constitutions, as the quantity of aqueous fluid necessary to produce the effect, may too much dispose to a fulness of habit, which has been before remarked to be unfavourable to people subject to the gout, and tending to lay a foundation for other diseases of serious importance. For the same reasons, the use of sea-water, taken internally, may be equally effectual ; and as

a less bulk of this is occasionally required to act on the bowels, it may sometimes be preferable to the mineral springs. It must not, however, be inferred, from what has been said, that there is, in all cases of gouty people, a continual need of the action of purgative medicines ; for this is not exactly the case. It is certainly desirable that the bowels be kept in a state bordering on relaxation, for a month or six weeks after a subdued attack of gout, and this to be more or less approaching to a state of open bowel, according to the nearer or greater distance from the fit. But, after this time, all that appears to me necessary, is to avoid actual costiveness ; which may, in most cases, be sufficiently effected by an aperient pill, taken occasionally, of no great bulk, and of mild operation ; for it is very material that a party, who may be in need of such a medicine for a long time, should have that by him,

which will inconvenience him very little, either in regard to taste or effect.*

It may also be observed, from what has been above stated on the subject of aperient medicines, that no preference has been given to any class of remedies with such qualities ; and, from the observations I have been able to make, I cannot conclude that any other precise effects are desirable in medicines of this kind for the gout, beyond the power of operating with certainty and mildness. That they should have the property of certainty, is very material, when actual disposition to a fit of the gout

* The following prescription appears to me to be better adapted for these purposes, than those compounded of aloes, or with mercurials.

R Pul. Jalapii ʒi.

Gum. Gambog. gr. xv.

Al. Caryophyll. gutt. vj.

Syr. Commun. q. s. ut fiant pilulæ xv.

Sumat unam pro dosi nocte, vel sæpius, prout opus sit.

demonstrates itself, or when the disease has lately occurred; for if the medicine should not happen to operate, it may add to the irritation of the gouty cause, which, under these circumstances, is readily brought into action, and which unitedly may occasion an attack of spasm in the bowels, that I have observed to occur through these means. This is relieved by accelerating the operation of purging, or by giving a dose of opium to appease the pain, and as soon as possible afterwards to operate effectually on the bowels.

The prevention of frequent fits of the gout, if what has been above stated is properly attended to, will be promoted also by rendering the fits as short as possible, when they occur. The gout is known to extend its influence in frequency, duration, and to various parts of the body, in proportion to the number, severity, and length of the paroxysms. These observations have long been made.

The miseries of helplessness, debility, and actual loss of all power, induced by this disease, are due to such fits. If, therefore, they can be counteracted in all these circumstances, the reasonable inference would be, that the disease itself would be capable of effecting less mischief, and be of less frequent occurrence, than if allowed to take its range. The plan above detailed, therefore, for preventing the gout, must not be considered to be proposed as absolute and infallible, but relative; and, being connected with no great severity of privation, it may be adopted by many who would shrink from a trial of those measures which have hitherto been recommended for the prevention of this disease. The ease with which a paroxysm of the gout is now known to be overcome, may abate, from the severity of those means that had for their object the prevention of a return of the disease, while it was considered to be

incapable of being controled. The ends here proposed are, to disrobe the disease of its severity, of its length of duration, and of its frequent returns, which will render the gout less serious in its consequences. The gout so modified may probably be found not to tend much to abridge the duration of life, which at present it is computed to do in a considerable degree. Those whose pecuniary interests have been concerned in this particular, have not been blinded by the fancies of the multitude, but have adopted plans of estimate, in regard to the continuance of life, of people subject to the gout, which have placed them under the predicament of paying a greater premium for the insurance of life, than those who have never suffered from the disease. They, therefore, act upon an opposite principle to those who are willing to consider the gout to be a salutary disease, and to promote health, rather than to tend, as it cer-

tainly does, to abridge the duration of human existence.

There are two other considerations, not before noticed, derived from facts which have been made use of for particular purposes in regard to the proper mode of conduct in the treatment of this disease, and as dissuasives from all interference with it. It may be proper here to notice them. The first is, that some time after the gout has made its attack, the appetite returns: hence the inference has been, that the gouty cause is thrown into the extremities, and has entirely quitted the stomach. But it has not been sufficiently adverted to, that this disposition to appetite has come on after some days' necessary abstinence or fasting, which either the torments of the disease, or the disordered state of the stomach, or both, have tended to occasion. Hence the digestive powers, after a sort of rest, have acquired again something of

their pristine vigour; but in this state of things they are not immediately abused, nor would they be so acted upon without inconvenience. In such a state, every sort of food is generally more sparingly given, and is of a quality to be easy of digestion; and fermented liquors, if taken at all, are drunk in small quantities; and both an actual and relative respite of the load from varied food and drinks, is the consequence of a fit of the gout; the good effects of which are very apparent upon the digestive organs. If gouty people would even imitate this sort of abstinence occasionally, which is forced upon them by a fit of the gout, they would, probably, find their advantage in such a proceeding, and similar good effects to ensue, in regard to a return of appetite and other healthy feelings.

The other circumstance is, that the gout will come on, though abstemiousness in diet is pursued, and fermented

liquors are avoided. With this, however, only a small portion of the gouty are concerned. When the disposition to gout is strongly fixed in the habit, it certainly does not need all those auxiliaries which have first conduced to bring on the disease. The fits of gout are preceded by some derangement of the alimentary canal, as a first step to the formation of the disease, which, after it has been affected frequently in this way, will be liable to be reproduced without the action of the actual causes which first occasioned it. Even the effects of the passions of the mind, or intellectual exertion, may bring on this disorder in some subjects. These effects I have occasionally witnessed, but their occurrence is undoubtedly not frequent, and limited to a certain class of subjects; nor should they be sufficient to dissuade from those means of regularity that have been pointed out; and, though not absolutely so, are likely to be generally suc-

cessful. When a disposition to a disease is fixed to a considerable degree, it requires much perseverance to counteract it. All those means that are likely to promote such disorder, should be studiously avoided. It is not now the same excess that tended first to excite the disposition to the disease, nor the application of the same noxious causes in their full force, that are necessary to bring it on, but such as might be wholly inadequate, under other circumstances, for this purpose. It is to be observed, that this state of susceptibility, in respect to the gout, is cultivated in some sort of proportion to the application of those causes which induce a frequent return of the disease; so that those in whom this disorder has not made great progress, have very rarely acquired that inclination to the gout, which baulks all prudent measures to prevent its being brought into action. I have, however, heard of this disposition being hereditarily so

strong, though I have never seen an instance of it, as for the gout to make its attacks in early life without the additional incitements of diet and strong drink. When those exceptions, however, to the powers of regimen and art are summed up, they will be found to have effect only in the last example in very rare instances, and in the other case only when the disease has been allowed to make an ungovernable progress for a number of years, and, therefore, apply to very few gouty persons under common circumstances.

A few words may be necessary to be said respecting some of those means which have been proposed of late to overcome the paroxysms of gout. In regard to the secret medicine, nothing is of course precisely known of its composition, and which must prove a reasonable objection with many to its use, more especially when equal and similar effects can be produced by known pre-

scriptions. But I shall not dismiss this subject without acknowledging, that the experience acquired on the treatment of gout, by purgatives derived from the use of this medicine, has been most material; that it has essentially assisted in shewing that the paroxysms of gout can be subdued without all the detriment before apprehended, and has contributed to overcome many hypothetical opinions respecting this disease, which stood in opposition to all efforts for its cure, more effectually than the united exertions of regular practitioners would have been able to have accomplished in half a century.

The experience I have had in regard to cold as a remedy for the gout, admits the inference, that its beneficial effects are not so quick, certain, and effectual, as those I have pointed out. In some constitutions I know it to have been of considerable advantage, and promptly so; but, in others, it has not

been equally successful. These variations of effect appear to me to indicate a considerable difference in the severity of the gout in different subjects. In my own case, if in the incipient stage of the disease cold applications had been more perseveringly used, the disorder might have yielded to these means to a greater extent than it did; but when the disorder had gained a considerable hold on the part, the application of cold ceased to afford any relief. The same circumstances happened to me some years before, on the trial of cold to the limb affected with gout, and were followed by the most painful fit of the disease I ever felt; when I had recourse to the use of considerable doses of opium, which not only assuaged the pain, but rendered this the shortest fit I had then experienced. I am disposed likewise to consider the gout to be much less severe in some individuals than in others, from the circumstance that it is in the power

of some persons to dispel a fit of the gout by exercise, of which I have known two instances. But I must observe, that these attacks could not be attended with all the pain and uneasiness, on motion, which others experience; for I judge it to be impossible, while the least opportunity is given to refer to feeling, for^d the most determined character to gain the use of a gouty limb by any common exertion in a highly painful fit of the gout. This variety, therefore, in the disease, will, I apprehend, account, in some measure, for the difference of effects that arise from the local means which we are at present considering. The use of cold applications for the cure of gout, has likewise fallen, with many, into disrepute, for the same reasons that have been given in regard to the operation of another remedy. With some, applications of this nature have been so effective, as to cause the greatest satisfaction; but the benefit, with most of them, has been

short; and the frequent returns of the paroxysm afterwards have tended to diminish the number of the advocates for this mode of treatment. It has, however, proved, that the gout may, in general, with great security, be interfered with, by local means, as the instances of fatal cases after this treatment, in comparison to the number who have employed it, have been very few, and therefore cannot be precisely attributed to this remedy. The external symptoms of the gout, however, after being thus subdued in one part, have been observed to make their appearance in another, in some instances, and the same effects have been remarked to ensue from the application of oil of camphor (an East India remedy some years ago used for the cure of gout) to the inflamed part under this disease. If, therefore, the gout is at all disposed to attack internal parts on being disturbed on the surface, remedies merely local would, doubtless, encourage such

translations, which, however, in so far as refers to the application of cold to the parts affected, in the extremities alone, appears to be matter of suspicion only, though it is exceedingly obvious when the constitution is worn down by repeated attacks of the disease, and seems unable to excite it in the extremities, that then the gout is liable to fix upon parts highly necessary to life, without being prompted so to do by any disturbance of the disease by art. The effects of cold in mitigating the gout of the extremities, are decided and evident in some cases, and tend to prove that the cause of gout for a certain time, and under certain circumstances, will act generally in a particular direction, and is not disposed to vary its efforts in any great degree. Cold applications may be considered to act favorably in subduing the inflammation of these parts, when it has not arrived at great intensity; but this does not cure the disease, which may remain obscure, and partly

inactive, for some time, in so far as external symptoms are concerned, but with certainty repeating its attacks at short intervals. The frequent renewal of the disease can only be obviated by its being more completely subdued, or the alimentary canal allowed to right itself, by an abstinence induced, and to a certain degree persevered in for a time, which the gout will imperiously occasion. If, however, the treatment of this disorder by cold applications should be found to be somewhat wanting in its permanent effects, it will, I trust, have the merit of introducing a somewhat different usage in respect to the state of temperature in which the gouty part is kept, by tending to show the impropriety of, and causing to be dismissed, those artificial means of occasioning heat that have been long used, and which encourage, according to my observation, greater external disease and

pain, and more protracted paroxysms, by which the constitution sustains a higher degree of injury, and the disease gains a stronger hold of the habit.

THE END.

